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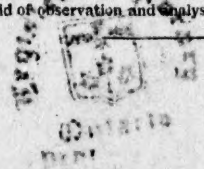


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OR,  
HOW INDIVIDUALS AND A COUNTRY  
BECOME RICH.

BY  
EGERTON RYERSON.

"Political Economy is not a science of speculation, but of fact and experiment, and the principles on which the production and accumulation of wealth and the progress of civilization depend are not the offspring of legislative enactments. Man's existence depends on his exerting himself to produce wealth; and the desire by which he is actuated to rise in the world and improve his condition, impels him to save and accumulate. The principles which form the basis of this science make, therefore, a part of the constitution of man and of the physical world; and their operations, like those of the mechanical principles, may be traced by the aid of observation and analysis."—*Encyclopædia Britannica*.



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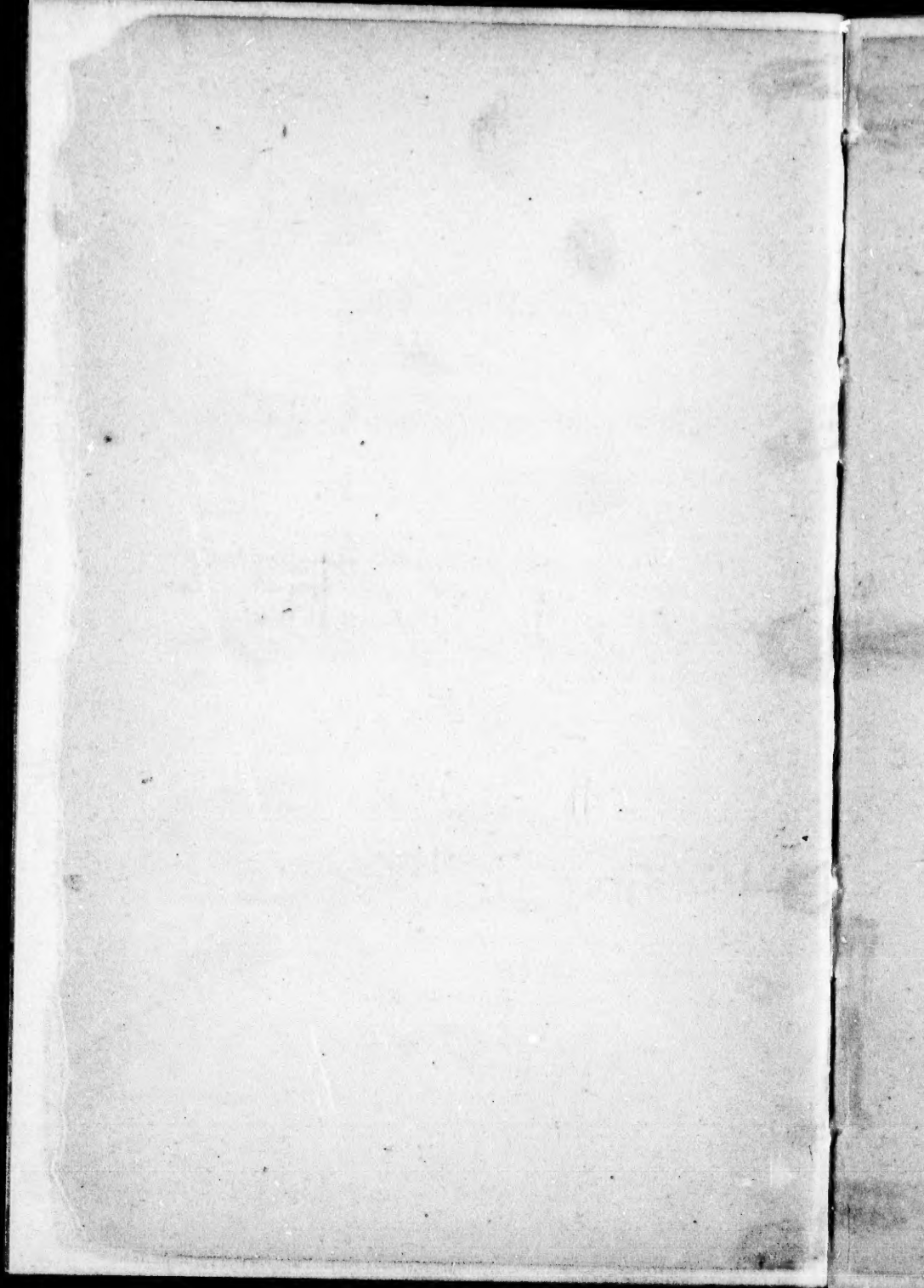
## PREFATORY NOTICE.



THE following book, like my "First Lessons in Agriculture" and "First Lessons in Christian Morals," is a gratuitous contribution, on the part of the author, to an important branch of useful knowledge.

The selection and arrangement of topics, mode of presenting them, many of the definitions, explanations and illustrations, are my own; but the materials and much of the phraseology have been compiled and condensed from the most authoritative works on Political Economy: such as Smith's "Wealth of Nations," by McCulloch; John Stuart Mill's "Principles of Political Economy, with some of the Applications of Social Philosophy" (2 vols.); J. R. McCulloch's "Principles of Political Economy;" Dr. Wayland's "Elements of Political Economy;" Senior's "Political Economy;" Sismonde's "Essays on Political Economy;" and among French authors, the works of Say (3 vols.), Michel Chevalier (3 vols.), Rossi (3 vols.), Droz and Garnier—especially the two latter.





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# POLITICAL ECONOMY.

## PART I.

### PRODUCTION.

#### LESSON I.

POLITICAL ECONOMY DEFINED : ITS OBJECTS AND UTILITY.

*What is Economy?*—The word economy, as commonly used, signifies saving money by prudent management ; or that management which expends money to the best advantage without waste. But more properly, economy signifies a prudent management of all the means by which property is acquired and saved.

*What is Domestic Economy?*—Domestic economy is the management of a family, or the concerns of a household. It includes the rules and art of appreciating the real wants of a family according to its position and circumstances, and providing for them with wisdom and foresight ; of employing money, time, labour and every object of domestic use and consumption, so as to cause the least loss, and most promote the comfort and happiness of the whole family.

*What is Political Economy?*—Political economy is state economy as distinguished from domestic or individual economy ; it is the wise and frugal management of public affairs, especially in regard to the revenues of a country, and comprehends all the measures by which the property

and labour of citizens are best employed for the success of individual industry and enterprise, and for the public prosperity. Political Economy is therefore called "*The Science of Wealth.*"

*What is Wealth?*—Wealth commonly signifies riches, an abundance of worldly possessions; it is anything which contributes to our benefit or happiness, and which may be made our own.

*Why is Political Economy called a Science?*—Political economy is called a science, because it teaches that systematic arrangement of the laws which God has established for the accumulation of the blessings of this life.

*What is the Object of Political Economy?*—The object of political economy is to teach the true method of a people's *producing, distributing and consuming* wealth.

#### NOTES ON THE LESSON.

1. The words "political economy" are of Greek origin. The word economy is derived from two Greek words, *Oikos*, a house, and *nomos*, a law—house-law, or the management of the household. The word political is also derived from the Greek, *polis*, a city. Political economy, therefore, strictly means the administration or government of the political household, so as best to develop and manage its resources.

2. Political economy has been variously defined. By French writers it is defined as follows:—J. B. Sage says: "Political economy is the science which shows how wealth is created, distributed and consumed" (*L'économie politique est la science que montre comment la richesse se forme, se distribue, et se consomme.*) M. Droy beautifully defines it as "Science, the object of which is to render competence as general as possible" (*L'économie est une science dont le but est de rendre l'aisance aussi générale qu'il est possible.*) The famous Joseph Garnier says: "Political economy, or simply economy (that is to say, the science of



wealth), is the science which has for its object to determine how wealth is and ought to be produced, distributed and consumed in the interest of the whole society" (*L'économie politique ou simplement l'économie, c'est-à-dire la science de la richesse est la science qui a pour but de déterminer comment la richesse est et doit, être produite, répartir et consommée dans l'intérêt de la société entière.*) M. Michel Chevalier, the present Adam Smith of France, says: "Political economy teaches how material interests are created, developed and organized" (*L'économie politique enseigne comment les intérêts matériels se créent, se développent et se organisent.*) But perhaps the definition of Mr. McCulloch, though not so easily remembered, is the most comprehensive and complete. He says: "Political economy may be defined to be the science of the laws which regulate the production, accumulation, distribution and consumption of those articles or products that are necessary, useful or agreeable to man, and which at the same time possess exchangeable value."

3. *Wealth* has sometimes been distinguished into *natural* and *artificial* or *social*—the former the gift of nature to all, as air, light, water; the latter the product of human industry. It is to the latter that the term *wealth* properly applies. For, as Mr. McCulloch remarks, "No article can be regarded as forming a portion of wealth, either of individuals or states, unless it be susceptible of appropriation. A man is not said to be wealthy because he has an indefinite command over atmospheric air, or over the articles with which he, in common with others, is gratuitously supplied by nature; for this being the privilege which he enjoys along with every one else, it can form no ground of distinction: but he is said to be wealthy according to the degree in which he can afford to command those necessities, conveniences and luxuries that are not the gifts of nature, but the products of human industry."

4. *The Utility and Object of the Science.*—In Chambers' little book on political economy, it is observed, "That the various phenomena of the physical world—the motions of the celestial bodies, the physiology of animals and plants, and the stratification of the earth's surface—are all regulated by laws attracting our wonder by their wisdom and beneficence. In political economy



we find laws of like character—imperfect and inexplicable when viewed separately and alone, but beautiful and complete when connected together, and viewed as a whole; and thus, though referring to sublunary objects, like physiology, geology and botany, it cannot fail to elevate the mind to a contemplation of the wisdom and beneficence of the Creator. A knowledge of physiology enables its possessor to point out bad ventilation, damp, noxious vapours and impure food, as causes of disease. In the same manner, a knowledge of political economy enables its possessors, especially those who have influence over their fellow-creatures, to remove obstacles to the development of the laws which minister to man's material well-being."

"The object of political economy," remarks Mr. McCulloch, "is to point out the means by which the industry of man may be rendered most productive of those necessities, comforts and enjoyments which constitute wealth; to ascertain the circumstances most favourable for its accumulation; the proportions in which it is divided among different classes of the community; and the mode in which it may be most advantageously consumed. The intimate connection of such a science with all the best interests of society is abundantly obvious. There is no other, indeed, which comes so directly home to the every-day occupations and business of mankind. The consumption of wealth is indispensable to existence; but the eternal law of Providence has decreed that wealth can only be produced by industry; that man must earn his bread by the sweat of his brow. This twofold necessity renders the acquisition of wealth a constant and principal object of the exertions of the vast majority of the human race; has subdued the natural aversion of man to labour; given activity to indolence; and armed the patient hand of industry with zeal to undertake, and perseverance to overcome the most irksome and disagreeable tasks.

"But when wealth is thus necessary, and when the desire to acquire it is sufficient to make us submit to the greatest privations, the science which teaches the means by which its acquisition may be best promoted, and we may obtain the greatest amount of wealth with the least difficulty, must certainly deserve to be carefully studied and meditated. There is no class of persons

to whom it can be considered as either extrinsic or superfluous. There are some, doubtless, to whom it may be of more advantage than to others; but it is of the utmost consequence to every one. The prices of all sorts of commodities; the profits of the farmer, manufacturer and merchant; the rent of the landlord; the employment and wages of the labourer; the influence of regulations affecting the freedom of industry; the incidence and operation of taxes and loans—all depend on principles which it belongs to this science to ascertain and elucidate.

“Neither is wealth necessary only because it affords the means of subsistence: without it we should never be able to cultivate and improve our nobler faculties. Where wealth has not been amassed, individuals, being constantly occupied in providing for their immediate wants, have no time left for the culture of their minds, so that their views, sentiments, and feelings become alike contracted and illiberal. The possession of a decent competence, or the power to indulge other pursuits than those which directly tend to satisfy our animal wants and desires, is necessary to soften the selfish passions; to improve the moral and intellectual character; and to insure any considerable proficiency in liberal studies and pursuits. It is impossible, indeed, to name a nation, distinguished in philosophy or the fine arts, that has not been at the same time celebrated for its riches. Pericles and Phidias, Petrarch and Raphael, immortalized the flourishing ages of Grecian and Italian commerce. The influence of wealth is, in this respect, almost omnipotent. It raised Venice from the bosom of the deep; and made desert and sandy islands on which she is built, and the unhealthy swamps of Holland, the favoured abodes of literature, science, and art. In our own country its effects have been equally striking. The number and eminence of our philosophers, poets, scholars and artists, have increased proportionally to the increase of public wealth, or to the means of rewarding and honouring their labours.”

## LESSON II.

## DIVISIONS OF THE SUBJECT; EXPLANATION OF TERMS.

*How may the Subject of Political Economy be divided?—*Political economy may be divided into four parts, or considered under four heads; namely, *Production, Exchange, Distribution and Consumption.*

*What is Production—the First Part of Political Economy?—*Production is the act of changing any object so as to adapt it better to satisfy our wants and desires.

*How may we change an Object so as to render it capable of gratifying our Desires?—*We may do so by changing the elements, the form, or place of the substance.

*In these operations do we create anything?—*No; we cannot create any more than we can annihilate any substance. The material of everything on which we act, whether a mineral, vegetable or animal substance, whether water, air or light, is the gift of the all-bountiful Creator. We only work on the materials which God has provided for us.

*What terms are employed in connection with these operations?—*Our modifying a thing so as to render it capable of gratifying a desire which it could not do before is called *production*; the person who effects this change is called the *producer*; and the substance changed is called a *product*. The material on which industry is exerted, together with the instruments and whatever is necessary to support that industry, is called *capital*.

**NOTE.**—The same article may be *product* to one and *capital* to another. Dry goods are *products* of *manufacturers*, but *capital* of dry good *merchants*. Leather is the *product* of the *currier*, but the *capital* of the *shoemaker*.

**What is Exchange—the Second Part of Political Economy?**—Exchange is selling articles which one has for articles which another has; and it treats of the principles which govern men in trade when they wish, by means of their own labour, to avail themselves of the labour of others.

**NOTE.**—When the exchange is between the articles themselves, it is exchange in kind, and is called *barter*; as when a farmer exchanges his wheat for goods. But when articles are exchanged for money, it is called *sale*; as when a farmer exchanges his wheat, or a merchant his goods, for money.

**What is Distribution—the Third Part of Political Economy?**—Distribution is the division of the results of capital and labour among capitalists and labourers; and “treats of the laws by which those who have united in the creation of a product, receive, respectively, their portion of the result;” or, in other words, it points the principles of an equitable division of the results of production in all such cases.

**What is Consumption—the Fourth Part of Political Economy?**—Consumption is the opposite of production, and signifies the destruction of the value which was created by production. It treats of the principles which should direct the use of the various products of art and industry in satisfying the wants and desires of man.

**NOTE.**—The subjects of this lesson will be treated in their order in the following pages.

## LESSON III.

## PRODUCTION, AND THE ACCUMULATION OF WEALTH.

*What is the Source of Wealth?*—Human labour is the true and only source of wealth. Adam Smith, in his *Wealth of Nations*, says: "Labour was the first price, the original purchase-money, that was paid for all things. It was not by gold or by silver, but by labour, that all the wealth of the world was originally purchased."

*But is not the Earth the Source of Wealth?*—The materials of wealth are the gift of God, and are deposited and spread over the earth; but until labour is applied to appropriate and adapt those materials to our use, they are without value, and are not considered as forming wealth. Gold and coal are worthless in the bowels of the earth until extracted therefrom and brought by human labour into a form, or into a situation, in which they may be used.

NOTE.—McCulloch remarks: "Of all the innumerable variety of animal, vegetable and mineral products which form the materials of food and clothes, none was originally serviceable, while many were extremely noxious to man. It is labour that has given them utility, that has subdued their bad qualities and made them satisfy his wants and minister to his comforts and enjoyments. . . . It would, in truth, be quite as correct to say that the earth is the source of pictures and statues, because it supplies the materials made use of by painters and statuary, as to say that it is the source of wealth, because it supplies the matter of commodities. . . . Labour is the talisman that has raised man from the condition of the savage, that has changed the desert and the forest into cultivated fields, that has covered the earth with cities and the ocean with ships, that has given us plenty, comfort and elegance, instead of want, misery and barbarism."

The famous Dr. Isaac Barrow, in his Second Sermon on Industry, remarks : " It is industry whereto the public state of the world, and each commonweal therein, is indebted for its being, in all conveniences and embellishments belonging to life, advanced above rude and sordid barbarism ; yea, whereto mankind doth owe all that good learning, that morality, those improvements of soul which elevate us beyond brutes. All the comely, the stately, the pleasant and useful works which we do view with delight or enjoy with comfort, industry did contrive them, industry did frame them. It hath subjected all creatures to our command and service, enabling us to subdue the fiercest, to catch the wildest, to render the gentler sort most tractable and useful to us. It taught us from the wool of the sheep, from the hair of the goat, from the labours of the silk worm, to weave us clothes to keep us warm, to make us fine and gay. It helpeth us from the inmost bowels of the earth to fetch needful tools and utensils. It collected mankind into cities, and compacted them into orderly societies, and devised wholesome laws, under shelter whereof we enjoy safety and peace, wealth and plenty, mutual succour and defence, sweet conversation and beautiful commerce.

Doth any country flourish in wealth, in grandeur, in prosperity ? It must be imputed to industry—to the industry of its governors settling good order, to the industry of its people following profitable occupations : so did Cato, in that notable oration of his in ' Sallust,' tell the Roman Senate that it was not by the force of their arms but by the industry of their ancestors, that the commonwealth did arise to such a pitch of greatness. When sloth creepeth in, then all things corrupt and decay ; then the public state doth sink into disorder and a disgraceful condition.

Every active and industrious man or woman is, therefore, a contributor to public prosperity as well as individual comfort, while every idle and slothful person is a sponge and blood-sucker of public and private weal."

If, then, labour is the agency through which all the necessities, conveniences and comforts of civilized life are obtained, *what is the grand subject of inquiry in respect to the production of wealth ?*—The grand subject of inquiry



in respect to the *production* of wealth is the means by which labour may be employed to the greatest advantage; or, in other words, the means by which the least expenditure of labour will procure the largest amount of the necessaries, conveniences and comforts of human life.

*What does the Inquiry into the Subject of Production involve?*—The inquiry into the subject of production involves the consideration of three things: First, capital; second, industry; third, the principles which should govern the application of industry to capital.

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## LESSON IV.

### CAPITAL: KINDS OR FORMS OF CAPITAL.

*What is Capital?*—Capital is everything which is employed in production except the labour; namely, the material on which the labourer works, the instruments with which he works, the means of his support whilst thus at work, and the results of his work in its products. The capital of an individual, or of a company, if examined, will be found to be composed of all these; and so also the capital of a nation consists of the raw material, of articles ready for consumption, buildings, ships, manufactories, and of the various substances essential to the existence and comforts of human life.

*What are the different Kinds or Forms of Capital?*—The kinds or forms of capital are as various as the employments of men. The capital of the *farmer* consists of the land he cultivates, the buildings, the seeds, manure, animals, carts, waggons, ploughs, harrows, and other imple-

ments which he employs on his farm. The capital of the *manufacturer* consists of buildings, machinery, iron, leather, wood, cotton, wool, flax, and in general all the material he employs in his peculiar branch of industry. The capital of the *mechanic* consists in his tools, and of the *merchant* in his goods and warehouses or shops. The matured products of each department of industry are also reckoned as items of capital; such as the grains and fatted animals of the farmer; the fabrics, tables, chairs, stoves, &c., of the manufacturer; whatever the merchant has received in exchange for his merchandise.

*But is not Money Capital?*—Money is an item of capital; but a man may have a very large capital and very little money. The capital of another may consist chiefly, if not entirely, of money. But money forms a very small part of the capital of the population of a country, and therefore a very small part of the capital of a country. The use of money is to facilitate exchanges; it is an instrument of exchange, not of production.

*What changes does Capital undergo?*—Capital is always undergoing changes in every branch of industry, the object of which is to change it from a form of less value into one of greater value, and thus to augment wealth. Thus the carpenter and cabinet-maker change their wood and other materials of stock into houses and articles of furniture; the manufacturer of cloth and cottons changes his wool and cotton into the fabrics which he produces; the manufacturer of hardware changes his metals into articles and tools of various use; the farmer changes his seeds, which mature into harvests of vegetables and grains. The *instruments* or machinery employed by these several and other classes of producers, undergo changes by being worn-

out and destroyed. The various kinds of food, clothing, furniture and shelter necessary for human existence and comfort, are changed. But the instruments of industry, if properly employed, reappear in the increased value which they have conferred on the various objects on which they have been employed; and the articles of food and raiment and shelter reappear in the bodily and mental vigour which they impart, and which, as the product of the farmer and manufacturer, form fresh capital to be employed in the work of production. There are also constant changes in the mature or finished products of the farmer, manufacturer, merchant, and every other labourer; each of whom wishes to dispose of his products that he may invest their value in further advancing his peculiar business, or for the means of subsistence and comfort.

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## LESSON V.

### FIXED AND CIRCULATING CAPITAL.

*What is Fixed Capital?*—Fixed capital consists of the buildings, machinery, tools, shops, roads, canals, farms and their improvements, stock and implements, and whatever is employed as an instrument of production, and which exists in any of these durable shapes.

*What is Circulating Capital?*—Whatever affords profit to the owner by a change of *form* or *place*, is circulating capital; such as the harvests of the farmer, the products of the manufacturer, and the wares of the merchant.

*How do you distinguish between Fixed and Circulating Capital?*—Fixed capital, though subject to decay and to

be worn out, and therefore requiring renewal and repairs, is yet durable, sometimes for years, or a lifetime, or for ages; but circulating capital is of more frequent production, and is as rapidly consumed. "In production, fixed capital is that which works upon the material to be changed, or in some way promotes its change, not the changeable material itself. Circulating capital, on the contrary, is the material worked upon. It is the material ever changing or *circulating* through the different forms which arise in the progress of production. Thus what is raw hide in the hands of the butcher, becomes leather in the hands of the currier, and shoes in the hands of the shoemaker. In all these forms it is circulating capital; but when it comes to be worn as an article of dress, it becomes fixed capital, since in this form it merely assists the individual in production; it has at length reached its final use and destination. And so in other cases. Fixed capital, therefore, is capital put to its final use, while circulating capital is capital in all the forms which it passes through till it reaches that use."

## NOTES ON THE LESSON.

On the distinction between circulating and fixed capital, Mr. McCulloch remarks: "It is usual to distribute capital into two great divisions, one denominated *circulating* capital, and the other *fixed* capital; the former comprising those portions of capital that are most rapidly consumed—such as food, clothes, and other articles necessary to the subsistence of man, the grain used as seed and in the feeding of horses, coal, &c.; while the lower animals, the houses, and the various instruments and machines that either are or may be employed in production, are classed under the head of fixed capital. But though this distinction be convenient for some purposes, no clear line of demarcation can be drawn between the different varieties of capital, all of which are indispensable to the successful prosecution of

most branches of industry. Without circulating capital, or food and clothes, it would plainly be impossible to engage in any sort of undertaking where the return was at all distant; and without fixed capital, or tools and engines, there are very few sorts of labour that could be carried on at all, or with any advantage."—(*Principles of Political Economy*, Part I., chap. iii.)

On the tendency to convert circulating into fixed capital in the accumulation of wealth, Dr. Wayland observes: "There is an obvious tendency in the nature of things to convert circulating into fixed capital. As circulating capital is annually consumed it must be annually replaced, or mankind, after the first year, would perish. It is replaced by the annual productions of the earth, either vegetable, animal, or mineral. But if the industry of man be sufficiently exerted, the amount of annual production will be sufficient, not only to supply the ordinary wants of the producers and to repair the waste and wear of fixed capital, but also to leave a surplus unappropriated. Now, as this kind of capital is annual, and as it is also perishable, if it be not *used* in some way this surplus must be a total loss. If it be appropriated to the multiplication of the annual capital, it will only increase that surplus, which is already too great. Hence, it can be usefully employed only in the creation of fixed capital. To accomplish this result, it is offered in the form of wages to mechanics, artizans, and those persons who employ themselves in the manufacture of those articles in which fixed capital consists. Hence the wages of this class of persons will rise, and a portion of them will be drawn from the production of circulating capital. This might at first be supposed to diminish the amount of circulating capital. Such would be the result, were it not for the fact, that the very object of fixed capital is to enable us to create circulating capital with a less amount of labour. A society in which part of the members are devoted to the making of useful machines, will cause a greater amount of annual products, than one in which all are devoted exclusively to the creation of annual products. Thus, in a short time, the annual surplus is greater than before, and a greater number of persons is employed in creating fixed capital, and that kind of fixed capital which involves in its creation a greater amount of expense. It is thus that a society, age after age, grows rich;

and each successive race of man leaves the world better provided with means of production than it found it."—(*Elements of Political Economy*, Book I., chap. i.)

"The most permanent of all kinds of fixed capital," observes Mr. J. S. Mill, "is that employed in giving increased productiveness to a natural agent, such as land. The draining of marshy or inundated tracts like the Bedford level, the reclaiming of land from the sea, or its protection by embankments, are improvements calculated for perpetuity; but drains and dykes require frequent repairs. The same character of perpetuity belongs to the improvement of land by subsoil draining, which adds so much to the productiveness of clay soils, or by permanent manures; that is, by the addition to the soil, not of the substances which enter into the composition of vegetables, and which are therefore consumed by vegetation, but of those which merely alter the relation of the soil to air and water; as sand and lime on heavy soils, clay and marl on light."—(*Principles of Political Economy*, Book I., chap. vi., sec. 1.)

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## LESSON VI.

### UNPRODUCTIVE AND PRODUCTIVE CAPITAL: HOW INDIVIDUALS AND NATIONS GROW RICH.

*What is Unproductive Capital?*—Unproductive capital, though consisting of articles of wealth, is capital which is of no practical use to any one; such as money hoarded, land lying waste, manure in the barn yard unused, goods lying in warehouses unsold, machinery unemployed, buildings unoccupied.

*What sort of Economy is it to allow Capital to remain Unproductive?*—It is bad economy, both in an individual or in the state, to allow any part of available capital to remain unproductive; for property thus situated is not



only useless to any one, but loses annually its ordinary rate of interest, and deteriorates in value from the effects of time and of the elements.

*What, then, is Productive Capital?*—Productive capital is that which, united with industry in one or more of its various forms, acquires additional value, or augments the means of subsistence or of comfort. "Every sound economist," says Dr. Wayland, "is anxious to have the whole of his capital productively invested. He who acts otherwise is ignorant of the principles of production, indolent, or slovenly. The farmer who allows a heap of manure to lie in his farm yard for a year, instead of spreading it on his land; the merchant who allows his ships to be idle, or his goods to be scattered, unsold, over several warehouses; or the manufacturer who owns twice as much machinery as he is able to employ, are annually losing all accumulation which this capital, properly invested, would produce. And still more, as all gains arise from small and successive accumulations, and as almost every product is liable to waste, it is manifest that habitual negligence of this sort must greatly diminish, if it do not entirely consume, all the net revenue of an establishment. The effort of every man should be to unite every fraction of capital with *industry*, and to keep it so united continually. Any gain, even the smallest, is better than no gain at all."

*But is there not a Destruction as well as Creation of Value in the changes which Capital is perpetually undergoing in the process of Production?*—Yes; the destruction of value goes on hand in hand with the creation of value in the process of production. He who sows wheat destroys the value of that wheat for food, but creates

from it a new value in the harvest which follows. He who manufactures woollen and cotton goods destroys the value of the wool and raw cotton as such, but gives them a new value in the woollen and cotton fabrics produced. He who converts iron into steel consumes the iron, but creates what is of more value in its place. In this process of production, there is also the destruction of value in the wear and tear of machinery, and the expenditure of labour. But if capital have been wisely expended in procuring material, and if labour have been skilfully directed, the product will be of exchangeable value sufficient to replace the original material in additional quantity, also to repay the producer for his labour, and pay the interest on his capital. "The amount of difference between the exchangeable value of his original material, together with his labour; and the exchangeable value of his product, is his profit. The annual amount of these profits is his annual gross income. The annual amount of these profits in a nation is the gross national revenue."

*Is it of any importance in what form Capital, thus changed in the process of Production, re-appears as a Product?—It matters not in what form capital, thus utilized, reappears as a product, if it only reappear in a form bearing a greater exchangeable value sufficient to defray the expenses of the change or changes, and leave a balance of profit to the producer or labourer. A farmer exchanges money for seed, manure and labour, by which his harvest is so increased as to replace the money expended, and largely repay the labour bestowed. The smith exchanges money for coal and iron; but by burning his coal, he produces an invisible substance, called heat or caloric, whereby he softens the iron so as to work*

into new forms of additional value, ample to reimburse him for the outlay of money and labour.

#### NOTES.

1. "We see hence," says Dr. Wayland, "in what manner nations and individuals grow rich. It is by uniting the industry of this year to the capital of last year, and by this process creating the augmentation of capital. This augmentation will be greater or less, in proportion as our industry has been successful in giving additional value to that value which previously existed. If we destroy a value, and produce another only equal to it, we lose our *labour*. If we destroy a value (or spend for nothing our money, time and labour) and reproduce nothing, we lose both *labour* and *capital*. It is only as the value created is superior to the labour and capital consumed, that we are enriched. Hence we see that wealth is acquired by small but oft repeated accumulations. The gross amount of these accumulations will be decided by our skill and industry. But as from this amount our various expenditures must be subtracted, our net revenue will depend not only on our skill and industry, but also on our *frugality*. Though a man earn much, yet, if he spend all, he will grow no richer. Hence *industry* and *frugality* are the great sources of wealth. Nor is this less true of nations than of individuals."

2. On the *destruction, reproduction and increase* of capital in a country, Mr. J. S. Mill has the following original and suggestive remarks: "Everything which is produced is consumed, both what is saved and what is said to be spent, and the former quite as rapidly as the latter. All the ordinary forms of language tend to disguise this. When men talk of the ancient wealth of a country, of the riches inherited from ancestors, and similar expressions, the idea suggested is that the riches so transmitted were produced long ago, at the time when they are said to have been first acquired, and that no portion of the capital of the country was produced this year, except as much as may have been this year added to the total amount. The fact is far otherwise. The greater part, in value, of the wealth now existing in England has been produced by human hands within the last

twelve months. A very small proportion indeed of that large aggregate was in existence ten years ago ; of the present productive capital of the country scarcely any part, except farm-houses and factories, and a few ships and machines ; and even these would not in most cases have survived so long, if fresh labour had not been employed within that period in putting them into repair. The land subsists, and the land is almost the only thing that subsists. Everything which is produced perishes, and most things quickly. Most kinds of capital are not fitted by their nature to be long preserved. There are a few, and but a few, productions capable of a very prolonged existence. Westminster Abbey has lasted many centuries ; some ancient sculptures have existed above two thousand years ; the pyramids double that time. But these were objects devoted to *unproductive* use. If we except aqueducts (to which may sometimes be added tanks and embankments), there are few instances of any edifice applied to industrial purposes which has been of great duration ; such buildings do not hold out against wear and tear. Capital is kept in existence from age to age not by preservation, but by perpetual reproduction : every part of it is used and destroyed, generally very soon after it is produced ; but those who consume it are employed meanwhile in producing more. The growth of capital is similar to the growth of population. Every individual who is born, dies ; but in each year the number born exceeds the number who die : the population, therefore, always increases, although not one person of those comprising it was alive until a recent date.

“This perpetual consumption and reproduction of capital affords the explanation of what has so often excited wonder—the great rapidity with which countries recover from a state of devastation ; the disappearance, in a short time, of all traces of the mischiefs done by earthquakes, floods, hurricanes, fires, and the ravages of war. An enemy lays waste a country by fire and sword, and destroys and carries away nearly all the movable wealth existing in it ; all the inhabitants are ruined ; and yet, in a few years after, everything is much as it was before. This *vis medicatrix nature* has been a subject of sterile astonishment, or has been cited to exemplify the wonderful strength of the principle of saving, which can repair such enormous losses in so brief an interval.

There is nothing at all wonderful in the matter. What the enemy have destroyed would have been destroyed in a little time by the inhabitants themselves (in the way of consumption): the wealth which they so rapidly reproduce would have been needed to be reproduced, and would have been reproduced in any case, and probably in as short an interval. Nothing is changed, except that during the reproduction they have not now the advantage of consuming what they had produced previously. The possibility of a rapid repair of their disaster mainly depends on whether the country has been depopulated. If its effective population have not been extirpated at the time, and are not starved afterwards, then, with the same skill and knowledge which they had before, their land and its permanent improvements undestroyed, and the more durable buildings probably unimpaired or only partially injured, they have nearly all the requisites for their former amount of production. If there is as much food left to them, or of valuables to buy food, as enables them by any amount of privation to remain alive and in working condition, they will in a short time have raised as great a produce, and acquired collectively as great wealth and as great a capital as before, by the mere continuance of that ordinary amount of exertion which they are accustomed to employ in their occupations. Nor does this evince any strength in the principle of saving in the popular sense of the term, since what takes place is not intentional abstinence but involuntary privation."—(*Principles of Political Economy*, Book I., chap. v.)

3. SCIENTIFIC AND SKILLED LABOUR may be regarded as part of the capital of a country, and the EDUCATION OF THE PEOPLE as an essential agency in the accumulation of national wealth. On this most important subject, Mr. J. R. McCulloch justly observes: "However extended the sense previously attached to the term *capital* may at first sight appear, we are inclined to think that it should be interpreted still more comprehensively. Instead of understanding by capital all that portion of the produce of industry which may be applied to support man and to facilitate production, there does not seem to be any good reason why man himself should not, and very many reasons why he should, be considered as forming a part of the national capital. Man is as much the produce of previous outlays of wealth

expended on his subsistence, education, &c., as any of the instruments by his agency; and it would seem that in those inquiries which regard only his mechanical operations, and do not involve the consideration of his higher and nobler powers, he should be regarded in the same point of view. Every individual who has arrived at maturity, though he may not be instructed in any particular art or profession, may yet with perfect propriety be viewed, in relation to his natural powers, as a machine which it has cost twenty years of assiduous attention, and the expenditure of a considerable capital, to construct. And if a further sum be expended in qualifying him for the exercise of a business or profession requiring unusual skill, his value will be proportionably increased, and he will be entitled to a greater reward for his exertions; as a machine becomes more valuable when it acquires new powers by the expenditure of additional capital or labour in its construction."

Dr. Adam Smith has fully admitted this principle. "The acquired and useful talents of the inhabitants, should," he states, "be considered as making part of the material capital. The acquisition of such talents," he justly observes, "during the education, study, or apprenticeship of the acquirer, always costs a real expense, which is a capital fixed and realized, as it were, in his person. These talents, as they make a part of his fortune, so do they likewise of that of the society to which he belongs. The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade, which facilitates and abridges labour, and which, though it costs a certain expense, repays that expense with profit."—(*Wealth of Nations*, p. 122.)

"Instead, then, of being entirely overlooked, as is most frequently the case, the dexterity, skill and intelligence of the mass of its inhabitants should be most particularly attended to in estimating the capital and productive capacities of a country. Much stress is uniformly and justly laid on the efficacy of the machines which man has constructed to assist in his undertakings; but he is himself the most important of all machines, and every addition made to his skill and dexterity is an acquisition of the utmost consequence. The discrepancies that actually obtain in the physical organization of the various races of men,



are seldom very considerable ; and yet, how vast is the difference, in other points of view, between an Indian in Mexico, and an Englishman or a Frenchman ! The former, ignorant and uninstructed, is poor and miserable, though placed in a country blessed with a soil of exhaustless fertility and genial climate ; the latter, intelligent and educated, is wealthy, prosperous and happy, though placed under comparatively unfavourable circumstances. Lord Bacon's aphorism, that 'knowledge is power,' is true in a physical as well as in a moral sense. It gives its possessors an ascendancy over their less instructed neighbours, and makes unmeasurable additions to their productive capacity. An ignorant and uneducated people, though possessed of all the materials and powers necessary for the production of wealth, are uniformly sunk in poverty and barbarism ; and until their mental powers begin to expand, and they have learned to exercise the empire of mind over matter, the avenues to improvement are shut against them, and they have neither the power nor the wish to emerge from their degraded condition.

"To those who are impressed with a conviction of the truth of the principles thus briefly stated, who are duly sensible of the importance of science to the advancement of nations, nothing can be more gratifying than the progress made of late years in diffusing instruction among the great mass of the community. It is impossible to form any accurate estimate of the influence of this general instruction over the future fortunes of the empire ; but it can hardly fail to be alike great and beneficial."—(*Principles of Political Economy*, Part I., chap. ii.)

## LESSON VII.

## LABOUR : ITS OBJECTS.

NOTE.—It has been seen from the preceding lessons that capital is the child of labour—the result or produce of past labour applied to assist future labour ; and that labour is, therefore, the foundation or source of wealth and value. “Gold is valuable, because it cannot be procured without labour ; so is coal, wheat, calico and silk. It is true that a person may come into possession of any of these commodities without labour : he may receive a quantity of silk or calico as a present, or he may succeed to it ; but some other person has laboured and given it value. Great labour is spent in bringing gold into existence in a usable shape, and thus it is that the mere metal itself has so great value. Iron and copper cost little labour to bring them into the mere form of metal, and therefore are of little value in comparison with gold ; but, by the expenditure of labour on them, they may be made more valuable than gold. Thus a little particle of iron, made by labour into the balance spring of a watch, is worth several times its weight in gold.”—(*Chambers' Political Economy*, p. 76.)

Seeing, therefore, that labour is the source of value, it is important to consider the objects and forms of labour, and its relations to capital and the accumulation of wealth. The present lesson will be devoted to the objects of labour.

*What is Labour ?*—Labour is the application of human power to production ; it is any exertion of body or mind, generally of both, for the purpose of producing some useful result.

*Is not Exertion of any kind Labour ?*—No ; exertion without a purpose, or for an evil purpose, does not deserve the name of labour ; exertions in play or amusement are called *exercise*, rather than labour, which means exertion attended with fatigue and for some useful purpose.

*What are the Objects of Labour?*—The objects of labour are threefold—to change the *elementary form*, the *aggregate form*, and the *place* of objects; a division which corresponds with the agricultural, mechanical and commercial departments of human industry.

*Explain what is meant by the threefold Object of Labour.*

—1. One object of labour is to change the *elementary form* of matter, which is done when the farmer, by means of seed and cultivation, aided by the natural agencies of the sun, light, earth, rain and the atmosphere, changes the elementary forms of carbon, gases and water (the elementary substances of plants) into grains, vegetables, and all the productions of the farm.\* The chemist changes the elementary forms of acids and alkalies into salts; and the case is the same with various other forms of human occupation.

2. The *aggregate form* of matter is changed by the labour generally of *mechanics* and *manufacturers*; as when the carpenter changes various kinds of lumber into a house; or the mason a pile of bricks and mortar into a wall; or the cabinet-maker boards into articles of furniture; or the blacksmith a piece of iron into a horse-shoe; or the cotton-spinner a bale of cotton into thread, and the weaver this thread into the cloth.

3. The *place* of matter is changed when merchandise of various kinds is transported from Europe and the United States into Canada, and our various products are transported, in return, to Europe and the United States; or when a railroad company or a teamster transports lumber or goods from one town or place to another.

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\* See the Author's "First Lessons in Agriculture."

## NOTES.

1. It is seen that although the physical changes produced in objects of labour are as numerous as the forms and processes of production and exchange, yet that these multiplied changes must be either visible or *aggregate* forms of objects, or a change in their elementary form, or a change of their *place*. "The mechanic or artizan, and ordinary manufacturer change only the visible or aggregate forms of objects. They do not attempt to separate their elements ; but by enlarging, reducing, attenuating, or otherwise modifying them, simply change their shape. The farmer and the chemist, on the contrary, change the elementary forms of objects. In the process of cultivation the farmer decomposes earths, manures, and extracts gases from the air, which are combined again into vegetables and grains. So, too, the chemist disengages elements from one substance and combines them with those of another, and thus forms new compounds. And by the various modes of *transportation* employed by the merchant and trader, the *place* of articles is continually undergoing change. As each man can conveniently produce but a small number of articles, but wants many, and these widely scattered over the world, there must always be a ceaseless *change of place* in all articles of use. Hence *transportation* must always be one of the most extensive branches of business, increasing as the wants of civilized man increase."

2. Though there be these divisions of labour, according to its objects, it frequently happens that the same person performs more than one of these kinds of labour. Thus the farmer transports his seed to the field, and then, after the chemical processes it undergoes in its growth and ripening, he transports his harvest to market ; and the cabinet-maker, who manufactures tables, chairs, &c., *transports* his materials from the lumber yard, and then his articles of manufacture to his customers.

3. Each of these forms of labour is equally important in conferring value upon substances—that is, in fitting them to gratify human desire. The ore in the mine has no capacity to do this, until made into iron and steel ; and the steel is valueless for the purpose of cutting, until it is made into edge tools ; and steel knives and razors are useless to us, until they are transported

from Sheffield or Birmingham. Each of these operations confers an additional value upon the object, and therefore contributes to the production of wealth. He who grinds wheat into flour, and he who transports it to where it is wanted, perform each acts as important to human sustenance and comfort as he who raises the wheat. He who imports a knife from England, performs a labour as important to me as he who manufactures the knife, which, for all practical purposes to me, might as well not exist as be three thousand miles off.

4. It is also worthy of remark, that these different forms of labour are so dependent the one upon the other, that if one should cease, the others would soon cease with it: for of what value would wheat and wool be to a farmer, if they could not be transported from the farm; or what gain could he derive from either, if there were no means of grinding the one or manufacturing the other; or what would they even then avail him, if there were no dealers in them? We thus see that all these forms of labour mutually support, and are supported by, each other, and that no jealousy should exist between different classes of producers, any more than between different members of the human body. But this subject will be treated in following lessons.

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## LESSON VIII.

### DIFFERENT FORMS OF LABOUR.

The objects of human labour being threefold—namely, to change the *material* form, the *aggregate*, and the *place* of objects—*What are the different Forms of Labour required for these Purposes?*—If we wish to effect either of these three kinds of changes, we must act according to those laws of nature which the Creator has established to produce such change. A man cannot kindle a fire out of stones, or in a pool of water; nor can he raise wheat by

the kind of labour he would employ in building a ship. If he would kindle a fire, he must obey nature's laws of combustion; if he would raise wheat, he must obey nature's laws of vegetation. Man cannot create the *laws* of nature any more than he can create the *objects* of nature; all he can do is to change the latter according to the laws of the former.

*Is all Nature then under the Control of Laws?*—Yes; every department of nature is under the control of laws—laws of the Almighty Creator, who “upholdeth all things, and by whom all things consist.” There are the laws of the mineral, vegetable and animal kingdoms; laws of chemical combination and of planetary motion; laws of vegetable growth, from the creeping ivy to the massive oak; laws of health for both body and soul. It is man's duty, and man's interest, and man's happiness to obey these laws. To obey these laws constitutes the different forms of human labour or industry.

*What then are the Principal Forms of Human Labour in the Production of Wealth?*—The principal forms of human labour for the production of wealth may be included under three heads, or are of three kinds; namely, *discovery, invention, operation.*

*What is meant by Discovery?*—Discovery is the finding out that which was before unknown, as Columbus discovered America, and Newton discovered the laws of gravitation, of optics, and of the motions of the heavenly bodies.

*What Classes of Labourers are included in the Works of Discovery?*—Discovery comprehends two classes of labourers—those who discover the laws of nature, and



those who make them known to mankind. Sometimes the two classes of labour are performed by the same individual, as when a discoverer makes known his discovery: thus when Franklin discovered and made known the laws of electricity, and Sir Humphrey Davy discovered and made known the alkaline bases and the laws of their combination.

*What is the Second kind of Labour for the accumulation of Wealth?*—The second kind of labour for the accumulation of wealth is that of *invention*.

*What is Invention?*—Invention is the contrivance of something new. In this it differs from *discovery*, which finds out what existed before, but which was not known; while invention is the contrivance of what did not exist before, or a new application of a principle or laws previously known; such as the *invention* of the lightning rod, of the safety lamp, of printing, of logarithms, of the thermometer and barometer.

*What is the Third kind of Labour in the accumulation of Wealth?*—The third kind of labour in the accumulation of wealth is called *operative* labour, which is the physical or manual labour performed to change the *elementary*, or *aggregate form*, or *place*, of the objects of wealth. This kind of labour occupies by far the most numerous class of society.

*But why may Discoverers and Inventors be considered Labourers in the accumulation of Wealth?*—Because their discoveries and inventions have added, and are adding, immensely to the wealth of nations, as well as to the civilization of mankind. Whether they were discoverers only, or inventors only, or whether they were both dis-

coverers and inventors, they have contributed more largely to national wealth than any cultivator of the soil, or worker in wood or metals. Sir Isaac Newton's discovery of the laws of light was followed by his invention of the telescope; Franklin's discovery of the laws of electricity led to his invention of the lightning rod; Sir Humphrey Davy's discovery of the laws of combustion prepared the way for his invention of the safety lamp, and for great improvements in the construction of chimneys, and in the instruments for moving houses; the invention of the mariner's compass succeeded to the discovery of the load-stone; Watt's invention of the steam engine was followed by Fulton's invention of the modification of it for propelling vessels, and all the varied applications of the steam engine to machinery on land and water; and what vast improvements have been made in spinning machinery since Arkwright's invention of the spinning jenny. All these inventions are but the application of the laws of nature to human interests and happiness; and the inventors are among the greatest benefactors of mankind.

## NOTES.

1. The connection of inventions with discoveries, and the justice of ranking inventors with producers, is well expressed by Mr. J. S. Mill in the following remarks:

"In a national or universal point of view, the labour of the savant, or speculative thinker, is as much a part of production in the very narrowest sense, as that of the inventor of a practical art; many such inventions having been the direct consequence of theoretic discoveries, and every extension of knowledge of the powers of nature being fruitful of applications to the purposes of outward life. The electro-magnetic telegraph was the wonderful and most unexpected consequence of the experiments of *Ersted*, and the mathematical investigations of *Ampere*; and the modern art of navigation is the unforeseen emanation from the purely

speculative and apparently merely curious inquiry, by the mathematicians of Alexandria, into the properties of three curves formed by the intersection of a plane, surface and a cone. No limit can be set to the importance, even in a purely productive and material point of view, of mere thought.

“Inventors, beside the labour of their brains, generally go through much labour with their hands, in the models which they construct and the experiments they have to make, before their idea can realize itself successfully in art. Whether mental, however, or bodily, their labour is a part of that by which the production is brought about. The labour of Watt in contriving the steam engine was as essential a part of production as that of the mechanics who build or the engineers who work the instrument, and was undergone, no less than theirs, in the prospect of a remuneration from the produce. The labour of invention is often estimated and paid on the very same plan as that of execution. Many manufacturers of ornamental goods have inventors in their employment, who receive wages or salaries for designing patterns, exactly as others do for copying them. All this is strictly part of the labour of production; as the labour of the author of a book is equally a part of its production with that of the printer and binder.”—(*Principles of Political Economy*, Book I., chap. ii., sec. 8.)

2. Still further on the recognition of authors and inventors as producers, and entitled to remuneration as such, Dr. Wayland has the following observations: “Civil society, observing that immaterial products are necessary to the well-being of a community, and that those who create them are liable to remain altogether unpaid, has frequently devised means by which some remuneration may be reaped from this kind of industry. Such are the laws of copy and of patent right. By the first of these, an author is allowed, for a limited time, the exclusive control over the publication of his work; and by the other, the inventor is entitled to the exclusive control over the use of his invention. In this manner both of these classes of labourers are enabled to derive some portion of benefit from their production. Were it otherwise, all their reward would consist in whatever of consideration they might obtain in the community, and in the gratification

of benevolence from the consciousness of having improved the condition of their fellows. But, inasmuch as every other man who is usefully employed obtains these rewards also, and receives pecuniary advantage in addition, there is no reason why the intellectual labourer should receive only the first and be excluded altogether from the second."—(*Elements of Political Economy*, Book I., chap. ii., sec. 2.)

3. Under the same heads of discovery and invention, or the application of law, may be remarked professional labour—the labour of the clergyman, the lawyer, and the physician. "The business of the clergyman is to teach us in what manner we may avail ourselves of the moral laws of the Creator; the lawyer teaches us how to avail ourselves of the laws of that civil society of which we are members; the physician teaches us how to obey the physiological laws under which we are created, so that we may be relieved from sickness, or preserved in health."

4. On the mutual dependence and combination of intellectual, agricultural and mechanical employments, pervading and binding together all classes of society, Dr. Isaac Barrow, in his Second Sermon on Industry, observes with his accustomed eloquence: "The great Author of order hath so distributed the offices and ranks of men, in order to mutual benefit and comfort, that one man should plough, another thrash, another grind, another labour at the forge, another knit or weave, another sail, another trade, another supervise all these, labouring to keep them all in order and peace;—that one should work with his hands and feet, another with his head and tongue, all conspiring to one common end, the welfare of the whole, and the supply of what is useful to each particular member;—every man so reciprocally obliging and being obliged; the ruler being obliged to the husbandman for his bread, to the weaver for his clothes, to the mason for his mansion, to the smith for his sword; these being all obliged to him for his vigilant care in protecting them, for their security in pursuing the work, and enjoying the fruit of their industry." "Thus," says Dr. Wayland, "we see that all the classes of labourers are mutually necessary to each other. Without a knowledge of the laws of nature, we would all be savages; without the skill and labour of the mechanic, there would neither exist the opportunity

of acquiring knowledge, nor would our knowledge, if acquired, be of any practical value. Nothing can, therefore, be more unreasonable than prejudices which sometimes exist between these different classes of labourers, and nothing can be more beautiful than their harmonious co-operation in every effort to increase production, and thus add to the conveniences and happiness of man."

5. The foregoing lesson and notes suggest the practical utility of the different branches of science in the accumulation of wealth. On this subject the same author forcibly remarks: "We hence learn the inconceivable importance to a nation of science, and of the labour of those who are devoted to the discovery of the laws of nature, and to the invention of new modes of applying these laws to the service of man. What would be the condition of the world at the present moment, if the knowledge of navigation and magnetism, and of the laws of chemistry were abolished? Undiscovered knowledge is just as rich in the means of human happiness as discovered knowledge. And hence, that nation which is most assiduously cherishing the means for availing itself of the benefit of all the laws of the Creator, will most rapidly provide itself with the comforts and conveniences and luxuries of life, in the greatest abundance, and at the least possible cost. Who can tell the benefit which will result to this country, when geology has revealed to us the riches which at present remain hidden from our view beneath the surface of the soil?"

## LESSON IX.

AID WHICH LABOUR RECEIVES FROM NATURAL AGENTS AND  
MACHINERY.

*What do you mean by Natural Agents?*—By natural agents I mean the varied powers of nature, or any quality or relation of things in nature which can be used to assist in production.

*Give some Examples.*—The light and heat of the sun are natural agents, without the aid of which we could produce no grains or vegetables; wind and steam and gravitating power of water are natural agents, by means of which we create the momentum necessary to travel by land and sea, and for various operations in the trades and arts; caloric or artificial heat is a natural agent, so necessary to cook our food, to prolong life in cold climates, to give many valuable qualities to metals, to create steam for the purposes of machinery, and for innumerable purposes of necessity and comfort; magnetism is a natural agent, without which oceans could not be navigated, much less could there be telegraphic communications across continents and oceans; the instincts and various powers of animals are also natural agents, so necessary for our convenience and the accomplishment of many purposes.

*Where are these Natural Agents derived?*—These natural agents are the gift of God; we create them not; they cost us nothing; man is only a labourer in the great laboratory or workshop of nature, the Divine Creator and proprietor of which furnishes the materials and their laws of action. "Man learns the conditions under which



nature works, and sees that these conditions are fulfilled; but nature really does the work. The farmer places the seed in the ground, but it springs up by its own laws and forces; he moves the soil and manure around the plant, but this being done, he can do no more; the plant extracts its own nutriment from these and other sources without his aid. Without the natural properties of wood, iron, and other forms of matter, man could not make use of any one of the mechanical powers—the lever, the inclined plane, the screw, the wheel and axle, the pulley, or the wedge; and without these there could be no such things as machines, since all machinery is but the combination of one or more of these mechanical powers under various forms."

*Are not these Natural Agents then of great Value to Man?*—These natural agents are of unspeakable inherent or real value, but they are of no exchangeable value; for they can neither be bought nor sold. Nothing is of greater intrinsic value or utility to man than air, and the light and heat of the sun, but they are the common inheritance of all, and are therefore of no exchangeable value, as they are not articles of sale.

*How do we render the relations and qualities of Natural Agents available as aids to Labour in Production?*—We do so by means of instruments, tools, or machines, constructed for the purpose.

*Can you give some Examples?*—A stone or fire-place is an instrument or tool by which we avail ourselves of the calorific or heating qualities of fuel; a steam engine is a tool or machine by means of which we avail ourselves of the expansive power of water when converted into steam; a water wheel is a tool by means of which we avail our-

selves of the gravitating power of water to grind wheat, or move other machinery for manufacturing purposes; the *mariner's compass* is a tool by which we avail ourselves of the peculiar qualities of the magnetic needle for transporting passengers and merchandise over oceans and seas; and a ship itself is an instrument or machine by means of which we apply the principles of hydrostatics to purposes of navigation.

As all agricultural and manufacturing processes consist in changing in some manner the materials of nature, *What Means is most universally required in these Changes?*—The means most universally required in such operations is *momentum*, or, as it is commonly called, *power*; without which, in agriculture, no change can be produced in the *elementary* form; in mechanics, no change in the *aggregate* form; and, in transportation, no change in the *place* of objects.

*How are the Natural Agents which are used to create and apply this Momentum or Power classified?*—These natural agents are divided into two kinds—*animate* and *inanimate*.

*What are Animate Natural Agents?*—They are for the most part beasts of draught and burden; such as the ox, the horse, the mule, and in some parts of the world the camel, the elephant, the dog and the reindeer. Some of these animals have vastly greater physical power than man—all of them are more easily sustained; and by a law of Divine appointment and goodness, they are made subject to man's authority and will for his use and happiness.

*What are Inanimate Natural Agents?*—The inanimate natural agents most used are—the *wind*, the gravitating

power of *water*, the expansive power of *steam*, the explosive force of *gunpowder*. The various uses of these agents are almost endless; and the extent to which they add to the productiveness of human labour, and to the convenience, comfort and happiness of man, cannot be computed.

*What are the advantages of Inanimate over Animate Natural Agents?*—Among the many advantages of inanimate over animate natural agents are the following:

1. Inanimate natural agents are of little weight and occupy little space in comparison of animate natural agents. A steam engine of two hundred horse power would occupy but a small space, and form but a small part of the cargo of a boat on which two hundred horses could not stand, much less work.

2. Inanimate natural agents work continuously without fatigue or pain, while animals must have intervals of rest, and seldom work without suffering pain.

3. The power of an inanimate natural agent is not decreased, any more than fatigued, by its velocity; a steam engine works as powerfully at one velocity as at another; but a horse cannot carry or draw one-tenth the weight at six miles an hour as he can at one.

4. Inanimate natural agents cost less, work with more force, more speed, more certainty, uniformity and precision, and are more under control than animate natural agents.

*In what other ways do these Inanimate Natural Agents so greatly increase and multiply the Productive Power of Human Labour?*—These inanimate natural agents in-

crease and multiply the productive power of human labour by enabling the producer or labourer to modify, combine and adopt the wondrous momentum or power they create, so as to accomplish all the results of mechanical operations with comparative ease and the greatest accuracy, and on an enlarged scale. By the combination of the power created by these natural agents with the muscular power of man, and directed by his intellectual skill, the most marvellous results are produced. Thus whole buildings of stone and brick, and lofty in height, have been raised several feet in the city of Chicago, and that without disturbing an occupant or an article of furniture; thus rocks, which would have otherwise defied the power and ingenuity of man, are blasted and removed so as to open railroads and canals where, but for this force, they could not have been built; and thus in large cotton and woollen, and other manufactories, human power is multiplied a thousand-fold in the production of articles of value.

## NOTES.

*On the Aid to Human Labour by Machinery.*—Every Canadian farmer knows how much aid human labour derives from the patent stump extractor, the mowing and threshing machines, and several other improved agricultural implements; and every manufacturer and mechanic have had experience of the immense saving and improved skill of labour by the employment of machinery. The Rev. Dr. Wayland, to whom I am so much indebted in preparing this book, has the following practical and suggestive remarks on this subject:

“The triumph of human skill is achieved when these two forms of natural agency [*creating and directing momentum or power*] are combined in a single machine. By the one we *generate* power to what extent soever we choose; and by the other we *modify* it in any form, give it any application, and direct it to

any purpose that our convenience may require. It is in this manner man renders all the various powers of nature tributary to himself. He can thus create, and use as he pleases, as great a power as he desires. He devolves the labour on nature, and he has only to fabricate the instruments and give them their direction. He is successful just in proportion as he does this ; since nature always works with undeviating accuracy, with unerring skill, with indefatigable perseverance ; and she always works for nothing.

It may be useful to specify some of the results accomplished by the various instruments which men employ for modifying the momentum which is exerted by inanimate natural agents.

1. We are thus enabled to *change the direction of power*. Thus, in the cylinder of the steam engine the momentum is created either in perpendicular or horizontal strokes. This, being by means of an arm and a crank changed into a circular motion, moves the paddle wheel of a steamboat. Thus also, in the machinery for moving a trip-hammer, a circular is changed into a perpendicular motion by the striking of the cogs of a wheel upon the short arm of a lever while the hammer is attached to the other arm.

2. We exchange *power for velocity*. This is done in spinning machinery. By water or by steam we cause a large wheel to revolve ten, twenty, or thirty times in a minute, and with power equal to that which could be produced by fifty or one hundred horses. In spinning, however, we need small power but great velocity. Hence by the combination of various large and small wheels, we produce a velocity in a thousand spindles equal to many thousand revolutions in a minute. The whole of this fifty or one hundred horse power is thus spread over a large manufactory, and adapted by various contrivances to every degree of velocity and every form of motion that may be required.

3. We are thus enabled to *exert forces too great for animate power*. By water power, or by steam, we can generate as great force as we please ; and we have only to combine with it proper adjustments in order to exert upon any point any momentum which we desire. The power required to roll and hammer iron

or copper, to propel steamboats, to forge anchors, and steel used in several other of the arts, is greater than could be exerted by any animate force with which we are acquainted, unless it were exerted by means of some combination of mechanical forces.

4. We are thus enabled to execute *operations too delicate for human touch*. Very delicate operations soon weary the nervous system by the excessive attention which they of necessity require. Thus, in order to spin the finest thread on a spinning wheel, there must be great accuracy both in the velocity of the wheel and in the muscular power exerted in drawing out the thread. This requires an effort of attention which the human system cannot long maintain, and, of course, the thread will frequently be uneven. But by means of machinery both of these operations may be adjusted with mathematical accuracy; and as machines have no nerves, they will be perfectly faithful to that adjustment. Thus we invariably see that the most delicate fabrics are those which are wrought by natural agents. Hence machinery is necessarily used in the manufacture of such articles as require for their formation identity of result, such as screws, types, &c.

5. By means of machinery we are enabled to *accumulate power*. We thus exchange a continuous and small force for a sudden and violent one. Such is the case with the pile-driver, and the common beetle or mallet, when used in combination with the wedge.

6. By the same means we are enabled to *exchange a short and irregular effort for a continuous and regular movement*, or to extend the action of a short over a long period of time. This is done in clocks and watches, and other similar machinery. Hence we spread the action of a minute (in winding up a clock or watch) over a day, or a week, with almost mathematical accuracy.

In consequence of the above mentioned application of machinery, various other advantages are realized in production. For instance, there is frequently a great saving of material, as in the change from making boards with an adze to that of making them with a saw; [the same also in making shingles with a saw instead of with a rive and a drawing knife;] and again, the labour of natural agents is so much cheaper, and many articles which would otherwise have been worthless are now deserving



of attention, as they may be endowed with some form of value." (*Political Economy*, Book I., Part ii., sec. 1, pp. 71-73.)

These instructive remarks on the use of natural agents as aids to the productiveness of human labour may be appropriately concluded by the following graphic and eloquent words of the late LORD JEFFREY in the *Edinburgh Review*, on the power of the steam engine :

"It has become a thing stupendous alike for its force and its flexibility; for the prodigious power which it can exert; and the ease, precision and ductility with which it can be varied, distributed and applied. The trunk of an elephant, that can pick up a pin or rend an oak, is nothing to it. It can engrave a seal, and crush masses of obdurate metal before it; draw out, without breaking, a thread as fine as gossamer, and lift up a ship of war like a bauble in the air. It can embroider muslin and forge anchors; cut steel into ribands, and impel loaded vessels against the fury of the winds and waves.

"It would be difficult to estimate the value of the benefits which these inventions have conferred upon the country. There is no branch of industry that has not been indebted to them, and in all the most material, they have not only widened most magnificently the field of its exertions, but multiplied a thousand-fold the amount of its productions.

"But these are poor and narrow views of its importance. It has increased, indefinitely, the mass of human comforts and enjoyments, and rendered cheap and accessible, all over the world, the materials of wealth and prosperity. It has armed the feeble hand of man, in short, with a power to which no limits can be assigned; completed the dominion of mind over the most refractory qualities of matter; and laid a sure foundation for all those future miracles of mechanical power which are to aid and reward the labours of after generations."

## LESSON X.

## DIVISION OF LABOUR.

**NOTE.**—It has been shown in the preceding lessons how much the productiveness of human industry has been augmented by discoveries, inventions, and natural agents; but its productiveness is scarcely less increased by *division of labour*—the subject of the following lesson.

*What is the Division of Labour?*—The division of labour is the separation of work by means of which each person does a particular kind or branch of it.

*What is the Origin of the Division of Labour?*—The division of labour has originated from one or more of several causes: 1. From necessity, as one man cannot perform every kind of labour, or produce all the articles which he needs; nor are there the means of exercising in the same place, and sometimes not in the same country, the various callings of farmer, mechanic, manufacturer, chemist, trader, &c. 2. From difference of taste, of physical and mental capacity, of circumstances, men incline to different kinds of labour, as that of the discoverer or philosopher, the inventor, the lawyer, the doctor, the farmer, the mechanic, the trader, and every variety of producer and labourer required by the wants of a community.

*How does the Division of Human Labour increase its Productiveness?*—Adam Smith, in his great work, *The Nature and Causes of the Wealth of Nations*, says: "The great increase in the quantity of work which, in consequence of the division of labour, the same number of people are capable of performing, is owing to three

different circumstances: first, the increase of dexterity in every particular workman; secondly, to the saving of time which is commonly lost in passing from one species of work to another; and lastly, to the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many." (Book I., chap. i.)

*How does the Division of Labour increase the Dexterity of Workmen?*—If a workman has any intelligence, and if his mind works with his hands, what he does frequently he comes to do easily; and what he does easily he is likely to do well; and what he at first does slowly and accurately, he comes to do quickly and with equal accuracy. This is true of the operations of both mind and body.

*Give some Examples.*—I may mention as examples the rapidity with which a pupil, after much practice, can sum up a column of figures, fluency of reading, speaking a language, easy and brilliant execution on a musical instrument; and in manual operations the effect of practice at one thing is still sooner produced. Adam Smith mentions the case of a blacksmith of all work, who, though accustomed to handle the hammer, could not make above three hundred nails in a day, and these hard ones, while several boys under twenty years of age, who had never exercised any other trade than that of making nails, could make, each of them, upwards of two thousand three hundred nails in a day. This was of course before nails were made by machinery. Adam Smith also mentions the examples of making pins and metal buttons, and adds: "The rapidity with which some of the operations of these manufactures are performed exceeds what the human hand could, by those who had never seen them, be supposed capable of acquiring."

*What is the Second Advantage mentioned by Adam Smith arising from the Division of Labour?*—The second advantage is, “the saving of the time which is commonly lost in passing from one species of work to another.” By division of labour this loss is avoided, and the advantages secured arising from the habitual training of both the muscles and the mind to particular operations of labour.

*What is the Third Advantage ascribed by Adam Smith to the Division of Labour?*—The third advantage is “the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many.” As labour is thus divided, the whole attention of each operative is directed to a single operation, and his whole study is to see how it can be most easily and rapidly performed. By the repeated performance of, and long attention to the same operation, improved methods and tools for performing it naturally suggest themselves to an active and intelligent mind. It is in this way most of the tools for saving labour in different parts of manufacturing operations have been first invented by common operatives, and have afterwards been combined into more or less complicated machines by head workmen or other persons of scientific knowledge and mechanical genius, who have been able to comprehend and apply the principles by which the detached parts could be combined together, moved by a single power, and the whole process performed with little aid of man. Thus tools become combined into machines; and knowledge and practice go hand in hand in multiplying the productiveness and cheapening the productions of human labour.

NOTE.—Adam Smith informs us how a most important improvement in the steam engine was first devised by a clever playful

boy. He says that "in the first steam engines a boy was constantly employed to open and shut alternately the communication between the boiler and the cylinder, according as the piston either ascended or descended. One of these boys, who loved to play with his companions, observed that by tying a string from the handle of the valve which opened this communication to another part of the machine, the valve would open and shut without his assistance, and leave him at liberty to divert himself with his playfellows. One of the greatest improvements that has been made upon this machine since it was first invented was, in this manner, the discovery of a boy who wanted to save his own labour." (*Wealth of Nations*, Book I., chap. i.)

But this illustrious author adds: "All the improvements in machinery, however, have by no means been the inventions of those who had occasion to use the machines. Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade, and some by that of those who are called philosophers or men of speculation, whose trade is not to do anything but to observe everything, and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects"—[as Newton the falling of an apple with the universal law of gravitation, from which discovery has resulted amazing improvements and advantages; and Franklin the lightning with electricity, from which discovery many benefits have resulted, and all the inventions and advantages of telegraphic communications.] "In the progress of society, philosophy or speculation becomes, like every other employment, the principal or sole trade and occupation of a particular class of citizens. Like every other employment, too, it is subdivided into a great number of different branches, each of which affords occupation to a particular class of philosophers: and this subdivision of employment in philosophy, as well as in every other business, improves dexterity and saves time. Each individual becomes more expert in his own peculiar branch; more work is done upon the whole, and the quantity of science is considerably increased by it. It is the multiplication of the productions of all the different arts, in consequence of the division of labour, which occasions, in a well governed society, that universal opulence which extends itself to the lowest ranks of the people."

*Is the Productiveness of Human Industry increased in any other way by the Division of Labour?*—Yes; by making it less expensive or more economical, from the classification of labourers according to their capacity. Different parts of the same series of operations in the process of manufacture require unequal degrees of skill and bodily strength for their performance. Some parts of these operations can be performed by women and children, while other parts require the strength of manhood and the skill of a trained workman. Production is most efficient when no more than the needful quantity of strength and skill is employed in each part of it. But if there were no division of labour, a skilled workman of the highest rate of wages would have to perform the whole process; whereas, by division of labour, parts of the process could be performed by inferior workmen, or women and children, at much lower wages. It also requires less time to learn a single operation than a number or complication of operations, and therefore less wages to the operator. Thus, by the division of labour, the greatest part of it can be accomplished by persons at comparatively small expense, and as perfectly as if performed by those whose labour is most expensive.



## LESSON XI.

## CO-OPERATION OF LABOUR.

*What is meant by the Co-operation of Labour?*—By co-operation of labour is meant the combined action of numbers. It is fundamental to the division of labour, and comprehends it, but is distinct from it.

*How many kinds of Co-operation are there?*—There are two kinds: first, such co-operation as takes place when several persons help each other in the same employment; secondly, such co-operation as takes place when several persons help each other in different employments.

*What is the Advantage of the First Kind of Co-operation?*—In the every-day employments of agriculture, of mechanics, and of manufactures, the advantage of two or more men helping each other in the same work is evident to all; such as felling trees, sawing timber, harvesting, erecting buildings, rowing large boats, pulling ropes on board of ship, and in countless numbers of employments. In most employments the co-operation of two or more persons will accomplish twice, or more than twice, as much as can the same number of persons working each separately; and many kinds of work can only be performed by the combination of several labourers to help each other.

*What Advantage arises from the Second Kind of Co-operation of Labour above mentioned?*—Several persons combining to help each other in different employments, leads to the formation of innumerable advantages to the various trades and professions, and the pursuits of domes-

tic and foreign commerce. For example: the occupation of one class of persons is breeding and feeding sheep; that of another is dressing and preparing the wool for the spinner; that of a third, spinning it; of a fourth, weaving the thread into broadcloth; of a fifth, dyeing and finishing the cloth; of a sixth, making into a coat; without mentioning carriers, merchants, factors, and retailers, co-operating in successive stages of this progress. "All these persons," says Mr. J. S. Mill, "without knowledge of one another, or previous understanding, co-operate in the production of the ultimate result—a coat. But these are far from being all who co-operate in it; for each of these persons requires food and many other articles of consumption, and unless he could have relied that other people would produce these for him, he could not have devoted his whole time to one step in the succession of operations which produces one single commodity—a coat. Every person who took part in producing food or erecting houses for this series of producers, has, however unconsciously on his part, combined his labours with theirs." Thus when one class of persons raise more food than they want, they can exchange with another class of persons who produce more clothes than they want, and thus commences a system of exchanges between the various producing classes of the same country, and even of different countries, of their respective products.

#### NOTES ON THE DIVISION AND CO-OPERATION OF LABOUR.

1. In the early settlement of a new country, every family, and many an individual had, like Robinson Crusoe on his desert isle, "to do everything for himself. He had to be his own farmer, butcher, and cook; his own builder, upholsterer, tailor, shoemaker. Capital was too small and labourers too few to admit of much division of labour or diversity of employments. But as

settlements increased and capital began to accumulate, one trade after another was established; the settlers became gradually known as farmers, shopkeepers, carpenters, blacksmiths, tailors, &c.; the division of labour soon extended not only to the establishment of different kinds of trades and businesses, but to labour in the same trade or business. Small factories were here and there set on foot, and some of them soon grew into considerable manufactories, which have gradually increased in number, variety, and efficiency, until we now have, in various towns and villages, manufactories of every description, with few exceptions, required by the wants of the country; division of labour to a large extent in each mechanical and manufacturing process; besides dealers in every kind of production, from the wholesale merchant down to the newspaper vender; and educational institutions, from the primary school up to the university, with its faculties of arts, law and medicine; and theological faculties, or schools connected with the different religious persuasions. This amazing development, division, and co-operation of labour among the various classes of the community, are accumulating the wealth and advancing the civilization of our country beyond all precedent."

2. In noting the accumulation of wealth and the progress of the country, as indicated and increased by the division and combination of labour, it is observable that there has been and is the least division of it in *agriculture*, arising from the nature of the employment. "Agriculture," remarks Mr. J. S. Mill, "is not susceptible of so great a division of occupation as many branches of manufactures, because its different operations cannot possibly be simultaneous. One man cannot be always ploughing, another sowing, and another reaping. A person who only practised one agricultural operation would be idle eleven months of the year. The same person may perform them all in succession, and have, in almost every climate, a considerable amount of unoccupied time. The combination of labour of which agricultural industry is susceptible is chiefly simple co-operation—many persons employed in the same work."—(*Principles of Political Economy*, Book I., chap. viii., sec. 6.)

3. But to labour as the source of value, and the division of labour as increasing its productiveness, may be presented the

following facts from Mr. Babbage's remarkable book, *Economy of Machinery and Manufactures*, in addition to what has been stated in the preceding lessons: The iron of which the balance spring of a watch is formed is valued at something less than a farthing, not quite half a cent; this produces an ounce of steel, worth 4½d., or about 8 cents, which is drawn into 2,250 yards of spring wire, and represents in the market £13 4s. sterling, or about \$60; but still another process of hardening this original farthing's worth of iron renders it workable into 7,650 balance springs, which will realize, at the common price of 2s. 6d. each, £946 5s., or upwards of \$4,500—the effect of labour alone.

Then as to the division of labour in the manufacture of watches. A watch consists of 992 pieces; and Mr. Babbage says: "It was stated in evidence before a committee of the House of Commons, that there are a hundred and two distinct branches in the art of watchmaking, to each of which a boy may be put apprentice; and that he only learns his master's department, and is unable, after his apprenticeship has expired, without subsequent instruction, to work at any other branch. The watch-finisher, whose business it is to put together all the scattered parts, is the only one, out of the hundred and two persons, who can work in any other department than his own." (*Economy of Machinery and Manufactures*, 3rd edit., pp. 201, 202.)

4. It is, however, only as capital increases in a country that division and combination of labour can be extended. Mr. J. B. McCulloch observes: "As capital must have preceded any very extensive division and combination of employments, so their subsequent division and combination can only be perfected as capital is more and more accumulated. Accumulation and division act and react on each other. The greater the amount of their capital, the better, speaking generally, can employers of labour distribute the work to be done among the individuals in their employment, who consequently have, as already explained, a greater chance of discovering machines and processes for facilitating their various tasks. The industry, therefore, of every country not only directly increases with the increase of the stock or capital which sets it in motion, but by means of this increase the division of labour is extended, and new and more powerful implements and machines

are invented, and the same quantity of labour is made to produce a much greater quantity of commodities." (*Principles of Political Economy*, Part I., chap. ii., pp. 103, 104.)

The same writer observes in another place: "But it is a mistake to suppose, as has been sometimes done, that the inventive genius of workmen and artificers only is whetted and improved by the division of labour. As society advances, the study of particular branches of science and philosophy becomes the principal or sole occupation of the most ingenious men. Chemistry becomes a distinct science from natural philosophy; the physical astronomer separates himself from the astronomical observer, the political economist from the politician; and each, meditating exclusively or principally on his peculiar department of science, attains a degree of proficiency and expertness in it which the general scholar seldom or never reaches." (*Ibid.* pp. 95, 96).

5. The more the industries of a country are multiplied and extended, the more will its demand in all the necessities and conveniences of life; and while the division of labour in each industry adds so much to its productiveness, it is the combination or co-operation of those industries that promote the aggregate wealth of a country. They are inter-dependent, and mutual contributors to each other's success. "Nothing," says Mr. McCulloch, "can be more silly and childish than the estimates, so frequently put forth, of the comparative advantageousness of agricultural, manufacturing, and commercial industry. They are inseparably connected, and depend upon and grow out of each other. The agriculturists raise raw produce for the manufacturers and merchants, while the latter manufacture and import necessary, convenient, and ornamental articles for the use of the former. Whatever, consequently, contributes to promote or depress the industry and enterprise of one class, must have a beneficial or injurious influence over the others. 'Land and trade,' to borrow the just and forcible words of Sir Joshua Child, 'are TWINS, and have always and ever will wax and wane together. It cannot be ill with trade but land will fall, nor ill with land but trade will feel it.' Hence the absurdity of attempting to exalt one species of industry, by giving it a factitious advantage, at the expense of the rest. Every preference given to agricul-

turists over manufacturers and merchants, or to the latter over the former, is sure to occasion mischievous consequences. Individuals should always be left to be guided by their inclinations in the employment of their stock and industry. Wherever this is the case, their interests are identified with those of the public; and those who succeed best in increasing their own wealth must then necessarily also contribute most effectually to increase the wealth of the state to which they belong."—(*Principles of Political Economy*, Part I., chap. vii., pp. 178, 179.)

The unity of interest and usefulness, together with the origin and progress of the various industries of a country, are admirably sketched in the fourth volume of the *Edinburgh Review* (pp. 361, 362), in the following words: "It may be safely concluded, that all those occupations which tend to supply the necessary wants, or to multiply the comforts and pleasures of human life, are equally productive in the strict sense of the word, and tend to augment the mass of human riches, meaning by riches all those things which are necessary, or convenient, or delightful to man. The progress of society has been productive of a complete separation of employments originally united. At first every man provided as well as he could for his necessities as well as his pleasures, and for *all* his wants as well as for *all* his enjoyments. By degrees a *division* of these cares was introduced; the *subsistence* of the community became the province of *one class*, its *comforts* of *another*, and its *gratifications* of a *third*. The different operations subservient to the attainment of each of these objects were then entrusted to different hands; and the universal establishment of *barter* connected the whole of these divisions and subdivisions together—enabled one man to manufacture for all without danger of starving by not ploughing or hunting, and another to plough or hunt for all without the risk of wanting tools or clothes by not manufacturing. It has thus become as impossible to say exactly who feeds, clothes, or entertains the community as it would be to say which of the many workmen employed in the manufacture of pins is the actual pin-maker, or which of the farm servants produces the crop. All the branches of useful industry work together to the common end, as all the parts of each branch co-operate to its particular object. If you say that the farmer feeds the community, and produces all the



raw material which the other classes work upon, we answer that unless these other classes worked up the raw materials and supplied the farmer's necessities, he would be forced to allot part of his labour to this employment whilst he forced others to assist in raising raw produce. In such a complicated system, it is clear that all labour has the same effect, and equally increases the whole mass of wealth. Nor can any attempt be more vain than theirs who would define the particular parts of the machine that produces the motion, which is necessarily the result of the whole powers combined, and depends on each particular one of the mutually connected members."

6. But the principles of the combination or simple co-operation of labour applies not only to the production of the various industries of the same country, and their mutual dependence upon each other, but also to the productions of the industries of different countries, their more complete co-operation, and their inter-dependence. It is in this view that commerce has been called the great peacemaker between nations, though it has often failed to prevent war. This great principle of international dependence and co-operation is graphically and eloquently set forth by Dr. Lieber, a distinguished German professor and lecturer on political economy in the United States. In his lecture or essay, entitled *Fallacies of American Protectionists*, published by the Free Trade Association of New York, occurs the following magnificent passage :—

"The economy of civilization rests on this seemingly hard but, in truth, kindly law, that with all the differences of races and climes, there is a pervading uniformity of the many human needs and likes, or of the wants of necessity, comfort, and culture on the one hand, and, on the other, there is the greatest diversity in the fitness of the earth and the conditions of men to satisfy these uniform appetitions. This is the civilizing law of inter-dependence, and the farther men advance, the more intense as well as extensive becomes its action, while the cravings of men multiply with every progress. First the members of the same family depend upon one another, not to forget that organic law according to which the period of dependence of the children on their parents far outlasts the period of lactation, and does so with no

other mammal; then districts, then countries, and at last whole hemispheres depend on one another.

"For brevity's sake this law may be called the law of uniform wants, and diversified fitness to satisfy them. Barter, division of labour and trades, commerce, the greater portion of the law and the whole law of nations, all politics and the spread of civilization, are based on this inter-dependence. Men were forced by it into the career of civilization, which they would never have entered had they been made for self-sufficient isolation.

"The uniformity of wants covers the whole globe: spots fit to satisfy them can be easily marked on the map.

"Iron, fish, sugar, coal, cotton, rice, wool, silk, wheat, gems, guano, whalebone, fruits, tobacco, linen, indigo, cochineal, meat, wine, oil, drugs, copal, spices, salt, petroleum, hemp, timber, zinc, lead, cocoa, pepper, figs, tea, coffee, hides, copper, gold and silver, bamboo and pearls, and the thousand manufactured articles—all are desired by nearly all, but few spots only produce or manufacture them. How can they be obtained? In but one way—by exchange; by the offer and exchange of one product for another product. He who interferes with free exchange, and consequently with free consumption, interferes with the Divine law of inter-dependence, 'Love'—not worry, still less hate—'one another.' All men stand in need the one of the other for food, health, comfort, and enjoyment; for safety, knowledge, skill, for justice and virtue, truth and religion, for the fine arts, for consecutive progress, and for the whole development of humanity; and as men advance, so does this mutual need increase."

But true and fundamental as is the doctrine of free trade thus put by Dr. Lieber, and applicable as it may be to old countries with matured institutions and manufactures, it may not equally apply to a new country, whose infant manufactures may be fostered by a tariff on certain foreign importations, at the same time that a revenue may be provided adequate to the public wants, and in a manner felt by the people to be the least burdensome.

## PART II.

## LESSON XII.

## EXCHANGE: DEFINITION OF TERMS.

NOTE.—In the preceding lessons, including the notes, it has been shewn that labour is the source of value to all articles; as happily expressed by Adam Smith, "Labour was the price, the original purchase money, that was paid for all things." The different kinds of labour have been stated, as also the division of labour, the aid it receives from natural agents, and the co-operation of labour to satisfy the wants and desires of mankind. This naturally leads to inquiry into the means by which this co-operation of labour is accomplished; or, in other words, how one or more classes of men participate in the products of each other's labour. This is effected by *exchange*—the subject of the second and most vital part of political economy.

*What is Exchange?*—Exchange is the mutual and voluntary transfer of the right of property by two individuals or parties to each other.

*What is the Origin of Exchange?*—Exchange originates in the division of labour, the variety of human tastes, wants and desires, and the diversity of soils and climates. From the earliest period of human history there were tillers of the soil, workers in metals, keepers of flocks, and hunters of game. Each worker performed one kind of work, but each one needed the products of the labour of every other worker; and therefore each one exchanged the surplus products of his work for the surplus products of each of the other workers.

*What, then, is the Principle of Exchange?*—The principle of exchange is labour for labour; or, in other words,

the voluntary exchange by one man of a portion of the products of his labour, or of that labour itself, for a portion of the products of the labour of another man, or for the labour of another man.

*What is necessary to effect Exchange?*—To effect an exchange requires two products, two producers, and that the producers should be brought into association with each other. The exchange is service on one side for service on the other side; as when a blacksmith puts a shoe on the horse of a tin pedlar, and receives a tin pan in exchange for his labour and material; or as when a farmer exchanges a quantity of wheat with the country merchant for a piece of cloth for a coat, and then another quantity of wheat with the tailor for making the cloth into a coat.

NOTE.—This mode of exchange, where the articles themselves are directly exchanged for one another by their producers, is called *exchange in kind*, or *barter*. It was common in the early history of this country, when the circulating medium of *money* was very scarce; and it is still practised to some extent in the newer and more remote settlements. It illustrates most simply and clearly the fundamental principle of exchange, as *labour for labour*—the principle that applies to all kinds and forms of exchange, whether with or without the circulating medium of the precious metals or paper, and to whatever distance or through however many hands an article may pass, from the first producer to the last consumer. It equally applies to the transaction of two farmers exchanging with each other a few bushels of wheat and corn, and that of a farmer and merchant, when the farmer sells to the latter his few bushels of wheat for money, and then pays that money for coffee, tea and sugar, which come, through many hands, respectively from Arabia, China and the West Indies.

*Why does Labour for Labour constitute the Principle of Exchange?*—Because labour, and labour only, confers

value on any substance; as gold and silver and iron are valueless in the mines until labour extracts them, and reduces them to forms adapted to use and ornament.

*But how does this conferring Value upon a Substance by means of Labour make it an Article of Exchange?—*Because “the labourer is worthy of his hire;” he that confers value upon a substance has a right to the value which his labour has created. If the original capital on which he labours (which is also the result of pre-exerted labour) is his own, then he possesses that original capital, together with the additional value which his labour has created. If he labours upon the capital of another and increases its value, he establishes a right to a portion of it, according to the respective values of the labour and capital employed.

*What then do you mean by Value?—*By value is strictly meant the capacity of a thing to satisfy man's wants and desires; it is the worth of a thing for use or pleasure. This is the real or intrinsic value of a thing.

*Is this the meaning of the word Value in Political Economy?—*No; in political economy, value signifies the market price of a thing; or that quantity of a thing which fits it to be lent, hired, sold or bought. It has been defined, “the quantity of labour, or the product of labour, which will exchange for a given quantity of labour, or some product thereof.” This is called *exchange value*—the sense in which the word value is used in political economy.

*What is the difference then between the meaning of the words Cost, Utility, Value and Price?—*Cost is the amount of labour required to produce a thing in the market, or

where it is wanted for sale or consumption; *utility* is the capacity or power of any thing to satisfy our wants and desires; *value* is what a thing is worth for use and pleasure; *price* is what a thing may be sold or bought for in money.

## NOTES.

It is important that the terms defined in this lesson be well understood; I will therefore add some illustrations of their meaning, especially of the term *value*. Mr. J. R. McCulloch remarks: "The power or capacity which particular articles or products have of satisfying one or more of the various wants and desires of which man is susceptible, constitutes their *utility*, and renders them objects of demand.

"An article may be possessed of the highest degree of utility, or of power to minister to our wants and wishes, and may be universally made use of, without possessing exchangeable value. A commodity or product is not valuable, merely because it is useful or desirable; but it is valuable when, besides being possessed of these qualities, it can only be procured through the intervention of labour. It cannot justly be said that the food with which we appease the cravings of hunger, or the clothes by which we defend ourselves from the inclemency of the weather, are more useful than atmospheric air; and yet they are possessed of that exchangeable value of which the latter is totally destitute.

"The word *value* has no doubt been frequently employed to express, not only the exchangeable worth of a commodity or its capacity of exchanging for other commodities, but also its *utility*, or capacity of satisfying our wants, or of contributing to our comforts and enjoyments. But it is obvious that the *utility* of commodities—the capacity of bread, for example, to appease hunger and of water to quench thirst—is a totally different and distinct quality from their capacity of exchanging for other commodities. Adam Smith perceived this difference, and shewed the importance of carefully distinguishing between utility, or, as he expressed it, '*value in use*' and '*value in exchange*.' When, for example, it is said that water is highly valuable, the phrase has

a very different meaning from what is attached to it when it is said gold is valuable. Water is indispensable to existence, and has therefore a high degree of utility, or of 'value in use;' but as it can generally be obtained in large quantities without much labour or exertion, it has, in most places, a very low value in exchange. Gold, on the other hand, is of comparatively little utility; but as it exists only in limited quantities, and requires a great deal of labour for its production, it has comparatively a high exchangeable value, and may be exchanged or bartered for a proportionably large quantity of other commodities. Those who confound qualities so different can hardly fail to arrive at the most erroneous conclusions. And hence, to avoid all chance of error from mistaking the sense of so important a word as *value*, we shall not use it except to signify *exchangeable worth*, or *value in exchange*; and shall always use the word *utility* to express the power or capacity of an article to satisfy our wants or gratify our desires."—(*Principles of Political Economy*, Introduction, pp. 3-5.)

To these observations of Mr. McCulloch, may be added the following remarks of Mr. Mill: "The word *value*, when used without adjunct, always means, in political economy, value in exchange; or, as it has been called by Adam Smith and his successors, exchangeable value, a phrase for which Mr. De Quincey substitutes the term *exchange value*—which is unexceptionable.

"Exchange value requires to be distinguished from price, and the words *value* and *price* were used as synonymous by the early political economists. But the most accurate modern writers, to avoid the wasteful expenditure of two good scientific terms on a single idea, have employed *price* to express the value of a thing in relation to money—the quantity of money for which it will exchange. By the *price* of a thing, therefore, we shall henceforth understand its value in money; by the *value* of a thing, or exchange value of a thing, its general power of purchasing—the command which its possession gives over purchaseable commodities in general."—(*Principles of Political Economy*, Book III., chap. i., sec. 3.)



## LESSON XIII.

## CAUSES OF EXCHANGE.

*What are the Causes of Exchange?*—The causes of exchange are twofold—the constitution of man, and the constitution of the globe on which he lives.

*What are the Causes of Exchange arising from the Constitution of Man?*—The causes of exchange arising from the constitution of man are chiefly from his desire and right of property, his aptitudes, his wants, his pleasures.

*State each of these Causes of Exchange in as few words as possible :*

1. The *desire* of property is co-existent with the first dawn of intelligence in the human mind. The child, before he can speak, claims and endeavours to retain the possession of any article put into his hands that pleases him. The desire of property grows with a child's growth and strengthens with his strength. We all desire something that we can call our own.

The *right* of property soon succeeds to the desire for it. Even among savages, the bows and arrows of the hunter, and the game he has killed, are not only regarded by him as his own, but his exclusive right to them is respected by his fellow-savages. The value which the hunter has conferred upon the game which he has killed, by rendering it available for human use and desire, gives him a right to its exclusive possession and use. From the very conditions of our being, he whose labour creates a value acquires the right of possessing it, from the boy that makes a toy to the man that makes a carriage; from the Indian that kills a deer from among the animals of the

forest, which are the common property of the whole tribe as long as they roam wild, to the Indian family that clears and cultivates a plot of ground in the common forest. As society advances, and the simple and precarious employment of the chase is succeeded by that of the shepherd and the keeper of cattle, and then by that of the farmer, and then by the mechanic and merchant, the right of property assumes various forms; but the desire of it is co-existent with human consciousness.

2. The *aptitudes* with which the Creator has constituted different men for different pursuits, is another cause of exchange. In ordinary industrial pursuits, one man prefers agriculture, another mechanics, another manufactures, another navigation, another commerce. There are also many subdivisions of these various pursuits, for which different men have special aptitudes and preferences. In other pursuits, one man is adapted to investigate the laws of nature, another to apply them to practical purposes, another to perform the operations by which these laws are made aids to human labour in creating value. And in the subdivision of these higher pursuits, one man is better adapted to investigate physical, another intellectual, and another moral laws, as relating to the accumulation of wealth and the constitution and progress of society. The *disposition* of man towards a particular pursuit is generally accompanied by an *aptitude* for it; and what a man likes most, he generally learns quickest and does best. This almost endless diversity in the aptitudes of men for different pursuits, necessarily leads to a corresponding division of labour, which is the fruitful cause of exchange.

3. The *wants* of man are almost as various as his aptitudes. He needs various other articles besides those which

he produces in the particular pursuit to which he devotes himself. The shoemaker cannot live on the shoes which he makes, nor any other mechanic upon the articles which he produces; and the farmer needs knives and forks, and dishes, and implements, and tea and coffee, sugar, woollens and cottons, which he cannot raise on his farm. He must therefore sell the surplus grains which he raises for other articles which he needs, or for the money which will procure them; and so must the shoemaker and mechanic dispose of the articles they make for what will procure them other articles which they need. All this involves exchange not only of the different productions of one's own country, but also of the productions of different countries.

4. The *pleasures* of man are another fruitful cause of exchange. The demands to gratify man's pleasures are almost as numerous and imperative as those for the satisfaction of his wants. All means of man's gratification, beyond the supply of his actual wants—such as articles and ornaments of dress, of furniture, of equipage, of fruits and other productions which gratify the taste and appetite, together with all instruments of amusement—cause exchanges on a large scale, and constitute no inconsiderable branch of foreign and domestic trade.

*What are the Causes of Exchange which arise out of the Constitution of the Globe on which we live?*—The causes of exchange which arise out of the constitution of the globe are chiefly three: variety of soils, variety of minerals, variety of climates.

*State each briefly.*—The first is the variety of soils. In one part of our own country the soil is adapted to certain kinds of grains and vegetables and fruits, and in another

part it is adapted to other kinds of grains, vegetables and fruits ; in other parts the chief value of the soil is in the minerals and lumber which it produces ; in another part it is best adapted to grazing ; and the conformation of the surface and its intersection with streams, adapt some places in the country to one kind of manufactures, and other places to other kinds of manufactures. Sometimes in the same neighbourhood, different farms are suitable only for different kinds of productions. In large countries this diversity of soil is much greater than in small ones.

2. The variety of minerals is much greater than that of soils, and gives rise to employments and exchanges equally various ; such as coal and iron mines, and mines of gold, silver, copper, lead ; besides the gems and precious stones of various countries.

3. The variety of climates, fixed by unchangeable geographical and physiological laws, is another cause of exchange on a large scale, as it gives scope if not rise to the peculiar aptitudes of the inhabitants of different countries, and adds immensely to the resources of human comfort and enjoyment. "Cotton, coffee, spices, sugar, rice, dye-stuffs, and many of the most valuable fruits and medicines can be cultivated only in the tropical latitudes. Wool, wheat, and breadstuffs generally, flax, and the most valuable animals, are found only in temperate climates ; iron is found in northern latitudes ; and furs, hemp and feathers are brought from climates still further north. One country is better adapted to commerce, another to agriculture, and another to manufactures."

#### NOTES.

1. *On the Origin of the Right of Property.*—"The sense of property is inherent in man—it seems to pervade all living beings

as an instinct. The bird enjoys property in its nest, just as a civilized man enjoys property in his house. The nest has been created by the bird's industry, and the house has probably been created by the industry of the man. In a simple instance like this the rights have a common foundation. Among men the notion of property is apt to become more complex; yet so natural is it, that even the brute creation can understand it to a considerable extent: thus a dog guards his master's coat and hat in the highway, and watches his master's barn-yard. The animal has, at the same time, a notion of his own separate property: thus he protects his kennel, and will not allow even those with whom he is on good terms to drive him out of it.

"The notion of property, however, is more fully developed among mankind, even when they are in a savage state. The bow and arrows of the Indian are his property; if they were not, and if he were liable to give them up to the rest of his tribe, he would never undergo the trouble of making them. Thus, from the very beginning, the advantage of property is felt. It induces men to create what they would not otherwise create, and improves their condition. When the savage has killed a wild beast with his bow and arrow, the flesh becomes his property for food, and the skin his for clothing. It is essential to the notion of property that it may be transferred. The savage may give his bow and arrows to his son, or his nephew, or any other person he may select; he may exchange them for other kind of property: thus, when mariners discover some new country, they find that the natives will give them skins and other articles which they possess in exchange for cloth and beads.

"But savages carry their notions of property to a far more refined extent: thus, in America each tribe possessed its own hunting ground. Although neither cultivated nor fenced, but left in a state of nature, yet it was considered the exclusive property of the tribe."

This right of the savage to the exclusive use and disposal of his bow and arrows, and the fruit of his skill and labour in the use of them, is the first and simplest recognition of the right of property. "As society advances," remarks Mr. J. R. McCulloch, "the right of property expands. The modern Tartars, like the

ancient Scythians, estimate their wealth by the number of their cattle. Their right to the animals which they have domesticated and reared is deemed sacred and inviolable; but the pasture-grounds belong, like the hunting-grounds of the Indians, to the whole society; and as the flocks are driven from one place to another, the grounds may be successively depastured by the cattle of every different individual. The moment, however, that men began to renounce the pastoral for the agricultural mode of life, a right of property in land began to be established. The soil cannot be cultivated, its fertility cannot be increased, nor can it be made to produce those crops which yield the largest supplies of food and other necessary accommodations, without continuous labour and persevering attention; hence the origin of property in land. Nothing, it is plain, would ever tempt any one to engage in a laborious employment; he would neither domesticate wild animals nor clear and cultivate the ground, if, after months and years of toil, when his flocks had become numerous and his harvests were ripening for the sickle, a stranger were allowed to rob him of the reward of his industry. The utility, or rather necessity, of making some general regulations, that should secure to every individual the peaceable enjoyment of the produce he had raised and of the ground he had cultivated and improved, is so very obvious, that it suggested itself to the first legislators. The author of the Book of Job places those who removed their neighbours' landmarks at the head of his list of wicked men; and the early Greek and Roman legislators placed these marks under the special protection of the god Terminus, and made their removal a capital offence."—(*Principles of Political Economy*, p. 81.)

2. *On the necessity of the Security of Property.*—"Let us not," says Mr. McCulloch, "deceive ourselves by supposing that it is possible for any people to emerge from barbarism, or to become wealthy, prosperous and civilized, without *security of property*. Security is indispensable to the successful exertion of the powers of industry, Where it is wanting, it is idle to expect either riches or civilization." "The establishment of property is in fact," remarks Bishop Sumner in his *Records of the Creation*, "the source from which all the arts of civilization proceed. Before this establishment takes place, the indolent suffer no inferiority, the active receive no gain; but from the date of the recognition of property

to the individual, each man is rich, and comfortable, and prosperous—setting aside the common infirmities which flesh is heir to—according to his portion of effective industry and native genius. From this period he is continually impelled by his desires from the pursuit of one object to another, and his activity is called forth in the prosecution of the several arts which render his situation more easy and agreeable.”

The French Communist war upon the right of property, echoed by a Communist party in England, is therefore a war against the first elements of civilization, and its doctrine that the right of property is the exaltation of the few by the depression of the many, is as false in fact as it is vicious in principle. On this subject Mr. McCulloch justly observes: “The right of property has not made poverty, but it has powerfully contributed to make wealth. Previously to its establishment, the most civilized nations were sunk to the same level of wretchedness and misery as the savages of New Holland and Kamtschatka. All classes have been benefited by the change; and it is mere error and delusion to suppose that the rich have been benefited at the expense of the poor. The right of property gives no advantage to one over another. It deals impartially by all. It does not say, ‘Labour, and I shall reward you;’ but it says, ‘*Labour, and I shall take care that none be permitted to rob you of the produce of your exertions.*’ The protection afforded to property by all civilized societies, though it has not made all men rich, has done more to increase their wealth than all their other institutions put together. But the truth is, that differences of fortune are as consonant to the nature of things, and are as really a part of the order of Providence, as differences of sex, complexion, or strength. No two individuals will ever be equally fortunate, frugal, and industrious; and supposing an equality of fortunes were at any time forcibly established, it would not be maintained for a week; some would be more inclined to spend than others; some would be more laborious and inventive; and some would have larger families. The establishment of the right of property enables industry and forethought to reap their due reward; but they do this without its inflicting the smallest imaginable injury upon anyone else. Its effects are altogether beneficial. It is a rampart raised by society against its common enemies—against rapine and violence,



plunder and oppression. Without its protection the rich would become poor, and the poor would be totally unable to become rich; all would sink to the same bottomless abyss of barbarism and poverty.”—(*Principles of Political Economy*, pp. 89, 90.)

“The security of property,” says Jeremy Bentham, “has overcome the natural aversion of man for labour; has given him the empire of the earth; has given him a fixed and permanent residence; has implanted in his breast the love of his country and of posterity. To enjoy immediately, to enjoy without labour, is the natural inclination of every man. This inclination must be restrained; for its obvious tendency is to arm all those who have nothing against those who have something. The law which restrains this inclination, and which secures to the humblest individual the quiet enjoyment of the fruits of his industry, is the most splendid achievement of legislative wisdom—the noblest triumph of which humanity can boast.”—(*Treatise on Legislation*, Vol. II., p. 37.)

3. *On the necessity of Exchange, and its Influence upon Peoples and Nations.*—The following remarks of Dr. Wayland further illustrate very forcibly what has been said in the text of this lesson on the causes of exchange: “The necessity of exchange as truly enters into the conditions as that of production. Without exchange there could be no division of labour, and, of course, only the smallest possible amount of production. Without exchange there would rarely be any stimulus to labour; for labour could add but little to our means of gratification, beyond the most absolute necessities of life. There would be no stimulus to form societies, since, as man depended solely upon himself, he might as well be solitary as social. Hence, all progress in civilization would be hopeless, and each generation would tread precisely in the footsteps of that which had preceded it.

“A society, at one period of its history, is better adapted to one sort of production than to another. When capital is scarce and land is cheap and fertile, a nation is better adapted to agriculture; when capital becomes abundant and land dear, it becomes gradually better adapted to manufactures; that is to say, nations, as well as individuals, both by original endowment and accidental

circumstances, have their special adaptations to the creation of particular products.

"It is also evident that, by each nation's devoting itself to that branch of production for which it has the greatest facilities, either original or acquired, its own happiness will be better promoted, and a greater amount of production created, than in any other manner. And while all nations thus appropriate their industry, a much greater amount of annual value will be created for the whole human race than by any change that could possibly be made.

"But whilst it is thus evident that every nation is intended by the Creator to improve its own advantages, that is, to create those products for the creation of which it has the greatest facilities, it is also a fact that every nation, and every individual of that nation, desires the productions of every other nation, and is happy in proportion as he enjoys them. What nation could be happy without the cotton of the South, the hemp and iron of the North, or the wool, wheat, and manufactures of temperate climates? Nay, let any individual look at the clothes he wears, the furniture of his room, or the food and utensils of his table, and he will be immediately convinced that every latitude of both hemispheres, and almost every country on the globe, are tributary to his happiness. His own country has peculiar adaptations, but they are adaptations for but few products; whilst every citizen of the country requires for his convenience, nay, almost for his existence, the production of every other country. These desires can be gratified only by national exchanges. Hence we see that *national* exchanges enter into the constitution of things under which we are created, as much as *individual* exchanges.

"And the final cause of this constitution is, in both cases, equally evident.

"Individuals are made thus dependent upon each other in order to render harmony, peace, and mutual assistance their interest as well as their duty. Where men are mutually dependent upon each other, the prosperity of one is the prosperity of all; and the adversity of one is the adversity of all. Man can enjoy many of the blessings which God has intended for him

only so far as others enjoy them also; and he cannot be deprived of them, unless others are deprived of them to a considerable degree also. Thus we see that the individual progress of man is, by the constitution of things, indissolubly connected with, if not absolutely dependent on, his social progress.

“And for the same reason, nations are dependent upon each other. From this universal dependence we learn that God intends nations, as well as individuals, to live in peace, and to conduct themselves towards each other upon the principles of benevolence. Where all are mutually dependent, as in the former case, no one can prosper without increasing the prosperity of all, nor suffer without bringing suffering upon all. Hence it is as truly our interest to seek the happiness, peace and prosperity of other nations as it is to seek the happiness, peace and prosperity of our own nation.

“From the above constitution it is evident that universal exchange is as necessary to the welfare, and even to the existence, of the human race as universal production. We have already seen that in all the departments of human industry, a great saving, both of time and expense, is effected by the *division of labour*. This is as true of labour in exchange as in any other case. Since, then, exchanges must be made, it will be better for the *whole* if a *part* of society devote themselves exclusively to the business of making exchanges.

“Exchangers (or merchants) are as necessary to the *cheapness* of production as producers themselves. Hence we also see how absurd is the outcry sometimes raised against them because they *produce nothing*. Did not a large class of the community devote themselves to this employment, it is impossible to conceive what would be the price of the most common and necessary utensil. Were the farmer obliged to carry his wheat or his cattle to exchange them at the manufactories where needles, knives, forks, plates, cups and saucers, scythes, sickles, and many other things requisite in his house and on his farm, who could estimate what these utensils would cost him? If the labourer were obliged to go for a spade or an axe where spades and axes are made in order to procure one, what would be the price of the spade or axe to him, and how would he ever be able to gain a subsistence? The

labourer may sometimes complain that the merchant is rich, and that he is poor; that the merchant stands at his desk, while he works in the street; that the merchant rides in his carriage, while he travels on foot. But it may be to him some consolation to remember, that were not the merchant rich the labourer would be still poorer, for every article would be dearer; and besides, there would be no one to pay for the labour with which alone he is able to purchase it. Were not the merchant to be at his desk, the poor would have no labour to do in the street; and were not the merchant able to ride in his carriage, the labourer would be obliged to go barefoot. And accordingly we see, that whenever mercantile, that is, the business of exchanges, is most successful, then are the means of living cheaper in proportion; and then are the operative classes richer, and the avenues to riches most widely open to all."—(*Dr. Wayland's Political Economy*, pp. 158-162.)

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## LESSON XIV.

## MAXIMS OR PRINCIPLES OF EXCHANGE.

*Can you state the chief Maxims or Conditions on which the Exchangeable Value of things depend?*

1. The exchangeable value of anything is in proportion to the labour bestowed on it; or, in other words, the rate at which anything is exchanged is the amount of labour which it costs to produce it. If it costs as much labour to produce an ounce of gold as it does fifteen ounces of silver or one hundred pounds of iron, then the exchangeable value of one ounce of gold is equal to that of fifteen ounces of silver or one hundred pounds of iron. If it costs twice as much labour to produce one bushel of wheat as it does to produce one bushel of potatoes, then one bushel of wheat is worth two bushels of potatoes; and so

with the relative or exchangeable value of all other articles of production or manufacture.

**NOTE.**—The interest on the capital invested, and its wear and tear, or, in other words, the wages of capital, must be taken into account in connection with the wages of labour, in estimating the cost of production. When the cost of production is diminished by improved machinery and comparative reduction of manual labour, the exchangeable value of such production is proportionably cheapened.

2. The exchangeable value of anything will also be determined by the ratio or relation between supply and demand. If the demand is greater than the supply, the value of the article will rise, and there will be competition among buyers; but if the supply is greater than the demand, the value of the article will fall, and there will be competition between sellers.

**NOTE.**—The variation in the value of anything arising from the relation of supply and demand, is affected by three circumstances:—

1. If the commodity be durable, so that its intrinsic value will not be affected by lapse of time, such as hardware and other durable commodities, the excess of supply over the demand will not cause much variation in its price; but if the article be perishable, as strawberries, peaches, and several other fruits, the fall of price from an increase of supply is very great.

2. The variation in the price of commodities arising from the relation of supply and demand, will also be affected by the facility or difficulty with which the supply may be increased: In *manufactured* articles, especially in a large city or town, or where there are great facilities of communication, the supply of them can be renewed or increased in a very short time, and therefore the limited supply of them will not cause much variation in their price; but in agricultural products, whether in our own or in foreign countries on which we are depending for supplies, such as wheat, tea, coffee, sugar, cotton, if a crop fail this year, the

supply must be diminished for at least a year, and therefore the price of these articles will be greatly increased.

3. The variation in the price of articles arising from the relation of supply and demand, will, in the third place, be much affected by the nature of the demand for them. If the demand be for an article of universal necessity—a commodity that all must have—the abundant supply of it would not cause a rapid reduction in the price, as the holder knows the ordinary consumption will soon reduce the supply in the market, and therefore prefers keeping it longer than sell it at a loss, or at a reduced price; but a scarcity of it would cause a rapid rise in the price, as every one hastens to purchase at almost any price, for fear of suffering the want of it.

3. The exchangeable value of anything will be determined by the *frequency* of exchanges. The more rapidly they are made the better. If a merchant purchase a hundred dollars' worth of tea or iron to-day and sell it to-morrow, he only sustains the outlay of his capital but one day, and expends but one day's labour and skill; he can therefore afford to sell his iron and tea cheaper, and make a profit on it, than if he had to keep it for a month or a year. If he can sell his goods within a week or a month after purchasing them, he can turn over the money expended in their purchase, together with the profits of their sale, as many times as there are weeks or months in the year. Thus brisk exchanges are for the benefit of both buyer and seller; the one gets his goods cheaper, and the other makes more out of his money and labour. This has suggested the maxim that a "quick sixpence is better than a slow shilling."

NOTE.—This is also the reason why the profit upon one operation in some kinds of exchange is greater than in others. "The profits of the wholesale merchant on a pound of tea are, for instance, greater than those of the retail merchant. He who

sends his capital to the East Indies and receives in return a cargo of teas, must charge interest and risk for the whole time consumed, from the day that he parts with his property until the day that he receives it again. This may be nearly two years. The retail merchant who purchases one of these chests of tea may sell it in a week, and thus invest it fifty times in the course of a year. Now, if the profit on an exchange were as great in the one case as in the other, the annual gains of the retail merchant would be exorbitant. These are reduced by competition to the average level; and hence his gains on a single operation are much less than those of the wholesale merchant. The same principle applies to production. The greater the time consumed in an operation the larger is the profit of each article, which justly belongs to the producer."

4. The exchangeable value of anything is influenced by the *facilities* of exchange. For example, before the building of railroads in this country, the price of the farmer's produce was low, and the price of goods bought by the farmer was high; and the reason is obvious—it was difficult and expensive to carry the farmer's produce to market, and it was difficult and expensive to bring the merchant's goods within reach of the farmer. But since the creation of facilities of exchange by railroads, the farmer finds a ready sale and gets a higher price for his produce, and the merchant can bring and sell his goods at lower prices to the farmer. The increased facilities of exchange also stimulate both agricultural and mercantile industry. When the farmer had access to no market by which he could transform his products into other objects of desire, he had little inducement to labour for more than the necessities of life; but as soon as he was able, by exchanging the products of his labour, to procure other objects of desire and value, new motives of industry were presented to him. The same stimulus was given to the activity and industry of merchants. The industry and



enterprise of the whole country have been quickened, and its wealth wonderfully increased.

5. Exchanges greatly depend on the productiveness of labour and capital. When the inhabitants of a country are temperate and industrious, and are blessed with abundance, and have surplus productions to exchange with each other, their exchanges will become numerous and mutually profitable. "Thus, exchanges must always be most numerous in the most prosperous conditions of a country; or, as every one knows, mercantile business is most prosperous, that is, the exchanges are most abundant, when manufacturing, agricultural, and all other kinds of industry are most productive." It has been asked, "What would be the amount of exchange effected between Great Britain, France and the United States, either among themselves or with each other, if the productiveness of these several countries were no greater than it was in the time of Julius Cæsar?" We may ask, what would be the amount of exchange of Canadians, both among themselves and with other countries, if the productiveness of their country were no greater than it was fifty or even twenty-five years ago?

6. Exchanges depend much upon the *intelligence* of the people. A savage wants little, for he knows little; but as his knowledge increases his desire for exchange increases; for it is "by knowledge that the desires of man are brought into relation with the objects intended by his Creator for their gratification." A family or neighbourhood that never goes from home, or never opens the door of knowledge, will make but few exchanges, and remain stationary, and relatively retrograde from year to year, if not from generation to generation; but every one knows how the

desire of exchange is awakened even in the bosom of a child the moment he enters a toy shop ; how the desire of a reader for books is enkindled by his passing a few minutes in a book store ; how the desire for a multitude of objects is created by reading and travel in our own and in other countries. "Thus, a man seldom goes from home into another country, or into another section of his own country, without obtaining a knowledge of various conveniences of which he was before ignorant. Familiar intercourse between men of different pursuits conduces to the same result. Newspapers filled with advertisements, circulated over every district of a country, have in this respect a powerful effect. All these causes combine to show every individual what he can produce which other men want, and how he may, by exchange, procure from them what he wants himself."

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## LESSON XV.

### AGENTS OF EXCHANGE

• *Who are the Agents of Exchange?*—Every person who buys or sells anything makes an exchange, and is therefore an exchanger or agent of exchange ; but those who devote themselves to the business of buying and selling are properly the agents of exchange, from the apple-woman who sells fruit at the street corners, to the importer of goods from foreign countries.

*How are the Persons who conduct the Exchanges of a Community designated and classified?*—They are called *merchants*, and are divided into two classes—retail merchants and wholesale merchants.

*What is a Retail Merchant?*—A retail merchant is one who trades with, or conducts exchanges between the inhabitants of the same country. He buys from the manufacturer or importer in large quantities, and sells in small quantities. For example, he buys cloths and cottons by the piece, teas by the box, and sugars by the hogshead, and sells them by the yard or the pound, as each consumer may require them.

*What advantage is a Retail Merchant to a Community?*  
—The retail merchant is advantageous to a community in several respects. He brings to the knowledge of a community many articles of utility and convenience of which they would otherwise have not been aware; he saves the community much time and expense in procuring such articles as they do not produce but require. The loss of time and the expense to each consumer would be enormous, if he had to go to the original manufacturer or importer for each spade, or hoe, or knife, or each yard of cloth or cotton, or each pound of tea or sugar, that he might require; and if each manufacturer were obliged to leave his labour to sell each tool or article of furniture or use, the price of it would be doubled or trebled, as would each pound of sugar or each pound of tea, were the importer obliged to open his hogshead to sell a pound of sugar, or a box to sell a pound of tea.

NOTE.—“ Besides, as each importer or manufacturer is supposed to confine himself to one particular product, the purchaser would be obliged frequently to go great distances, and transact with a great number of persons business which he may now be able to accomplish with a single individual. Every one must thus perceive that a consumer saves much time by purchasing his sugar, tea, coffee, pepper, salt, &c., at one shop, instead of going to wholesale importers for these articles individually; especially if, as is frequently the case, they lived some hundreds of miles

asunder. It is much more economical to buy needles, tape, cotton, calico and silk at one shop, than to go to the several individuals, in different places, who have imported or made these articles in large quantities. In consequence of this advantage to the community, the retail dealer is able to charge a profit on all the articles which he sells, and, at the same time, to furnish them at a much lower price than that at which the purchaser could procure them in any other manner. Hence retail dealers are as necessary to the prosperity of a country, and to the cheapness of productions, as any other class of persons. And it will be found very universally, that it is much more economical to employ their services than for a man to undertake to do their business himself."—(*Wayland's Political Economy*, pp. 162, 163.)

It may also be remarked, that in cities and large towns there is generally a large division of labour among retail dealers, as well as importers and manufacturers. One deals in hardware, another in dry goods, another in groceries, another in boots and shoes, &c., &c.; but in small towns and villages one shop will contain a collection of all these different kinds of goods and productions, as the population may not be large or wealthy enough to support a dealer in each of these branches of commerce separately.

*What is a Wholesale Merchant?*—A wholesale merchant is one who conducts exchanges (not like the retail merchant, between individuals of the same country, but) between individuals of different countries, and in large quantities only. "He exports, in bulk, the commodities of his own country, and imports, in return, the commodities of other countries."

*What advantage is the Wholesale Merchant to the Community?*—Without the agency of the wholesale merchant the surplus products of the country would remain in the hands of their producers, without value and useless, as there would be no one to buy them and export them to other countries, or to purchase and import such products of other countries as are required in our own country,

and which our own country does not produce. No individual producer could afford to carry his surplus products to foreign countries and dispose of them there, and purchase there the articles of foreign countries which he might require for his own use and consumption. Thus there could be no exports from our own country to other countries, nor imports from other countries into our own country, without the wholesale merchant, whose agency almost creates the exchangeable value of the surplus products of our own country, while it cheapens the price of articles imported from other countries.

NOTE.—It has been shown that the interests of the retail merchant are so much identified with those of the community with whom he deals, that when they are prosperous he prospers, and when they are depressed he is depressed also. The same remark applies with still greater force to the wholesale merchant. His interests advance and decline with those of his country. No producer suffers more from the failure of crops than does the wholesale merchant. It leaves him without a market in the country, and without the means to go to market in another country; but when the products of our country are abundant, then the exports of the surplus to other countries will provide means there to purchase the commodities of those countries required in our own country, where the proceeds of the sales of its surplus products will provide means to purchase the articles imported, as well as those of domestic manufacture. "Hence his interest and that of the community are the same. It is for the interest of the community that those commodities of which we have a superfluity should be exported; it is for the interest of the merchant to export these same commodities. It is for the interest of the community that those objects of desire which are most wanted should be brought back in return; it is for the merchant's interest, also, to bring back these very commodities; for from these alone can he expect gain, and that gain will be the greater in proportion as he procures them on the most favourable terms, that is, as he procures them where they are the cheapest and most abundant. Hence his gain will be in proportion as

he can transfer the productions of the earth from those regions where they are least wanted, to those regions where they are most wanted. And this is precisely what the interests of society require should be done."

Mr. J. R. McCulloch justly observes on this subject: "A commercial intercourse between the inhabitants of different countries and districts, and even between those of the same district, is most commodiously carried on by a distinct class of individuals denominated merchants, *commutatio mercium*, which forms their business. This class is, for the most part, subdivided into two subordinate classes, *wholesale dealers* and *retailers*. The principal business of the first consists in conveying commodities from places where they are cheap to those where they are dear. Generally speaking, they buy at first hand and from the producers; but instead of selling direct to the consumers, they most commonly sell to retailers. The business of the latter is to keep assortments of goods that are wanted in the places where they reside, serving them out in such quantities and at such times as may best suit the convenience of their customers or of the public. This subdivision is exceedingly beneficial for all parties. It would be next to impossible for a wholesale merchant to retail goods he had collected in distant markets; but suppose he were to attempt it, he would, it is clear, have to establish agents in different parts of the country; so that, besides requiring additional capital, he would be compelled, from inability to give that individual attention to any single department of business so indispensable to secure its being conducted with due economy and in the best way, to lay higher prices on his goods. The objections which have sometimes been made to the intervention of retailers between the wholesale dealers, or the producers, and the consumers, are plainly, therefore, without any real foundation. And it admits of demonstration, that this necessary business will be done best and cheapest by a class distinct from the wholesale dealers."

"It is plain, from these statements, that the formation of a separate mercantile class adds very materially to the advantages resulting from commerce. It gives, in fact, an uninterrupted employment to the plough and the loom. The intervention of wholesale and retail dealers enables every one to apply himself

exclusively to his particular calling. Agents and warehouses being established all over the country for the purchase and sale of commodities, agriculturists and manufacturers know beforehand where they may always find a market for what they have to sell, and procure, at the current prices of the day, what they wish to buy. They are able, in consequence, to devote their whole time and energies to their respective businesses; continuity is given to their operations, and the powers of production are augmented to an extent that could hardly have been conceived possible before the rise of the mercantile class."—(*Principles of Political Economy*, pp. 340-342.)

## LESSON XVI.

### INSTRUMENTS AND ADVANTAGES OF EXCHANGE: THE PRECIOUS METALS.

*What are the chief Instruments of Exchange?*—The chief instruments of exchange are money and banks.

*What is Money?*—Money is the circulating medium of exchange; it is the instrument for facilitating exchanges; or it is a commodity employed to exchange for other things needed or desired.

*What are the essential Qualities of Money?*—It should have great value in small bulk, and thus be easily transported from place to place; it should be divisible in very small portions without loss of value; it should keep a long time without decay or loss in value.

• *What Metals possess these Qualities in the highest degree?*—Gold and silver possess these qualities in a higher degree than any other metals; they are therefore called "the precious metals," and are used—especially gold—



by most civilized nations as a circulating medium, or money. Gold, the chief circulating medium in all civilized countries, is a beautiful substance, adaptable to any shape or size without loss of value, comparatively portable, extremely durable, procurable only by great labour, and then only in limited quantities.

NOTE ON THE NECESSITY OF MONEY, OR OF A CIRCULATING MEDIUM.—The first and most obvious reason for a circulating medium is the want of a standard or common measure for values of different sorts. Mr. J. S. Mill remarks: "If a tailor had only coats, and wanted to buy bread or a horse, it would be very troublesome to ascertain how much bread he ought to obtain for a coat, or how many coats he should give for a horse. The calculation must be commenced on different data every time he bartered his coats for a different kind of article; and there could be no current price, or regular quotations of value. Whereas now each has a current price in *money*, and he gets over all difficulties by reckoning his coat at £4 or £5, and a four-pound loaf at 6d. or 7d. As it is much easier to compare different lengths by expressing them in a common language called feet and inches, so it is much easier to compare values by means of a common language called pounds, shillings, and pence [or dollars and cents.] In no other way can values be arranged one above another in a scale; in no other way can a person calculate the sum of his possessions; and it is easier to ascertain and remember the relations of many things to one thing, than their innumerable cross relations with one another."—(*Principles of Political Economy*, Vol. II., chap. vii., sec. 1.)

2. A second reason for the necessity of a circulating medium is the *inconvenience of barter*, that is, "exchange of commodity for commodity, as when a farmer exchanges wheat for sugar, or pork for iron," &c. The inconvenience of barter I have pointed out to some extent in lesson xiv.; but I notice it here to illustrate more fully the necessity of a circulating medium. "Suppose," says Dr. Wayland, "a producer to have prepared his product for consumption. If he be obliged to exchange in kind, it may be a long time before he finds another person who desires the

article which he has created. If he be obliged to wait long, his product, if perishable, will be destroyed or deteriorated. He must go in search of a purchaser; and if he at length find one, he may have consumed in the search as much time as the article originally cost. This must be added to the cost of the article, or else he will be a loser. But by this additional cost the product is no better; it is only dearer. This must of course decrease the demand, and hence, by all this additional cost, both parties are poorer.

"But it is to be remembered that the producer not only wants to part with his product, but also to part with it for some particular object of desire. He who has raised wheat does not want simply to part with his wheat, but also to receive in exchange for it tea, or coffee, or iron, or salt, or clothing. He must therefore, in order to effect the exchange which he desires, not only find some one who wishes for wheat, but also some one who is able to give him in return the precise product he desires. If he desire clothing in return, it will not be sufficient to find some one who offers him bread, or shoes, or butcher's meat. This also increases the difficulty of exchange, and of course the labour and the cost necessary to effect it. But this is not all. Men who wish to exchange do not always wish to exchange in equal amounts. A grazier who brings a fatted ox to market may find persons enough who want a few pounds of beef, but very few who want a whole ox. He cannot divide his ox, and give part of it for a few pounds of coffee or tea; nor does he probably require one-fourth of the value of the ox in any article which may be purchased in the town where it may be sold. Thus exchanges would be arrested, or must be made rarely and at great cost, and under every possible disadvantage."—(*Wayland's Elements of Political Economy*, pp. 189, 190.)

Mr. Mill further illustrates the necessity of a circulating medium as follows: "By tacit concurrence, almost all nations, at a very early period, fixed upon certain metals, and especially gold and silver, to serve this purpose. No other substances possess the necessary qualities in so great a degree, with so many subordinate advantages. Gold and silver are eminently divisible, and when pure, always of the same quality; and their purity may be ascer-

tained and certified by a public authority."—(*Mill's Principles of Political Economy*, Vol. II., p. 4.)

Several other reasons may be assigned in illustration of the inconveniences of exchange in kind, and the necessity of a circulating medium. I will give but one more, which should not be omitted. Exchange in kind applies only to *material* products; but these include a very small part of the exchanges which our necessities require to be made. One great article to be exchanged is *labour*, whether mental or bodily. "This every man produces, and must produce, by the law of his nature; and this every man is able to offer in exchange for the objects of desire. Now, were exchange only in kind, a man who had nothing but labour or skill to offer, would not be able to labour for those who desired his labour, and who would give him the *greatest wages* for it; but he must labour for those who were willing to give him, in ever so small quantity, the articles which he needed for his support. The labourer in an iron foundry would be obliged to take his pay in iron; but as he could not exchange his iron with the baker, the butcher, or the clothier, he must go and work for these producers for any compensation by which he might obtain for himself the necessities of life. The workman of the baker must take his pay in bread; but he would want only a small portion of bread for himself, and he must spend his time in exchanging it for whatever else he needed. If he could not thus procure tea, coffee, clothing, and other necessities, he must leave his occupation and work for those who wished to exchange them for his labour. The physician must take his fee in iron, or bread, or butcher's meat; and if any of his patients produced what he did not want, he must either attend them gratuitously, or they must die without assistance. Besides, there are many products incapable of division. If a number of men were engaged in building a ship or a house, how could they take their pay in kind, without taking the ship or house to pieces, and thus render their work wholly useless? Hence, were exchange only in kind, there would be no division of labour, except in its most imperfect form. No man could perfect himself in any one art; because by the exercise of that alone he could not possibly procure the means of sustenance."—(*Dr. Wayland's Elements of Political Economy*, pp. 190, 191.)

*Were Gold and Silver used in very early times as Money?*

—Gold and silver were first used as ornaments of dress and furniture, as appears from many allusions in the earliest books of the Bible; but from primitive ages they seem to have been used as money. Gold and silver are both mentioned as money as early as the times of the patriarch Abraham—nearly two thousand years before the Christian era. When Abraham sent his trusty servant Eleazar to his native country, to seek a wife among his kinsmen for his only son Isaac, and when the servant found the maiden whom he regarded as divinely designated to be the wife of his master Isaac, it is said (Genesis xxiv. 22), “the man took a golden earring of half a shekel weight, and two bracelets for her hands of ten shekels weight of gold.” And when Abraham bought a piece of ground as a burying-place for his deceased wife Sarah, he paid for it in silver, as it is said (Genesis xxiii. 16), “Abraham hearkened unto Ephron; and Abraham weighed to Ephron the silver, which he had named in the audience of the sons of Heth, four hundred shekels of silver, current money with the merchant.”

*In what form were Gold and Silver first used as Money?*

—Gold and silver were first used as money in the form of bars or ingots, which were weighed or valued by weight; but they were soon afterwards fashioned into coin, the stamp attesting the quality and value of the piece by weight.

*Have Gold and Silver alone been used as a Circulating Medium?*—No; the natives of the African coast formerly used small white sea-shells, which they called cowries, as money. The North American Indians formerly used skins of animals, small shells or beads, and wampum, as

money. In early pastoral nations, cattle were frequently used as a circulating medium. Homer says that the armour of Diomedes cost only nine oxen, whilst that of Glaucus cost a hundred.\* Sheep appear to have been used for the same purpose, as the wealth of individuals was estimated by the number of their flocks and herds. At a much later period, the Greeks and Romans used the baser metals as money. Lycurgus established iron as a circulating medium among the Lacedemonians; and the Romans used copper and brass in the early periods of their history. But these have, in all places, long since given place to gold and silver, which are now known everywhere as "the precious metals."

*But does not coining Gold and Silver add to their Money Value?*—No; the coining of gold and silver merely attests their quality and value by weight, and saves the trouble of weighing them, and prevents imposture by alloys.

#### NOTES.

1. The first instance on record of metals being used as a medium of exchange, is that recorded of Abraham, in Genesis xxiii. 16, buying a burial-ground of Ephron, and weighing "four hundred shekels of silver, current money with the merchant." Mr. Mill remarks: "When gold and silver had become virtually a medium of exchange, by becoming the thing for which people generally sold and with which they generally bought whatever they had to sell or buy, the contrivance of *coining* obviously suggested itself. By this process the metal was divided into convenient portions, of any degree of smallness, and bearing a recognized proportion to one another; and the trouble was saved of weighing and assaying it at every change of possessors, an inconvenience which on the occasion of small purchases would soon become insupportable. Governments found it to be their interest to take the operation into their own hands, and to interdict all coining by private per-

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\* *Iliad*, Lib. VI., line 235.

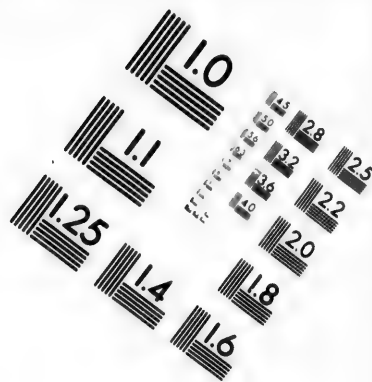
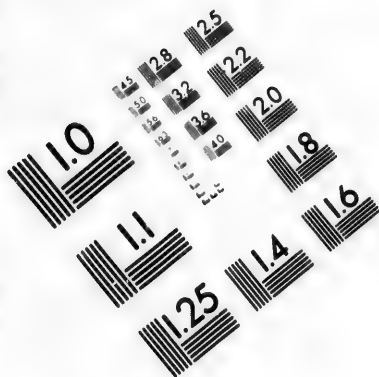
sons; indeed their guarantee was often the only one which could be relied on."—(*Principles of Political Economy*, Vol. II., pp. 5, 6.)

2. "The fabrication of coins," says Mr. McCulloch, "or the practice of impressing pieces of the precious metals with a public stamp indicating their weight and purity, belongs to the remotest antiquity, and it may safely be affirmed, that there have been few inventions of greater utility, or that have done more to promote improvement.

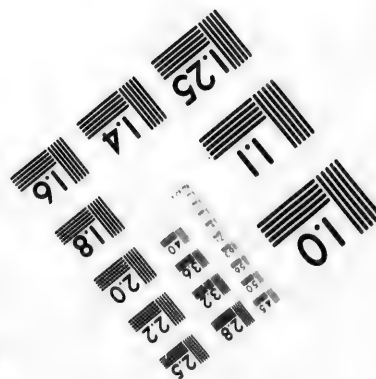
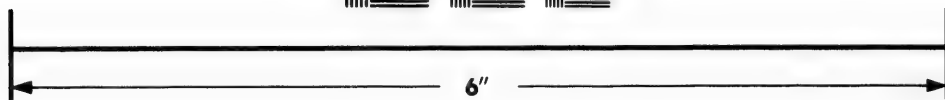
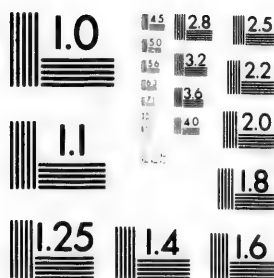
"It is material, however, to observe that the introduction and use of coins does not affect the principle on which exchanges were previously conducted. The coinage saves the trouble of weighing and assaying gold and silver, but it does nothing more. It declares the weight and purity of a metal in a coin; but the value of that metal or coin depends, in all cases, on the same principles that determine the value of other commodities, and would be as little affected by being re-coined with a new denomination, as the burden of a ship by the change of her name."—(*Principles of Political Economy*, p. 134.)

3. Dr. Wayland remarks on the same subject: "Inasmuch as gold and silver possess all the essential qualities which are required in a circulating medium, and as the condition of man so manifestly points to the necessity of some such instrument, it is not remarkable that they have so long and so universally been adopted for that purpose. But it is always to be remembered, that we use them as a circulating medium because *we want a circulating medium*, and because *they accomplish the purpose*. We do not use them as a circulating medium because *we see a stamp upon them*, nor because government *has made them a legal tender*, but because we know *they represent a given amount of value*, and we therefore know that we can exchange them for the same amount of value whenever we please."—(*Elements of Political Economy*, p. 199.)

4. In the United States both gold and silver are made a legal tender in payment of debts. In Great Britain, gold is the only legal tender for all sums over forty shillings sterling; silver for all sums less than forty shillings; and copper only in payment of sums less than a shilling.



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## LESSON XVII.

INSTRUMENTS AND ADVANTAGES OF EXCHANGE (*continued*):  
BANKS, PAPER MONEY.

*What is a Bank in Political Economy, or in Commerce?*  
—A bank is an establishment for keeping money secure, and for dealing in money by discounting bills and otherwise.

*How are Banks constituted and managed?*—Banks are sometimes established and managed by individuals; but for the most part they consist of a voluntary association of stockholders, who elect a certain number of directors, by whom a president and cashier are annually chosen, through whom, with the counsel of the directors, the affairs of the bank are managed.

*What guarantee have Depositors and the Public at large for the safety of the Money deposited in the Banks, and for the payment of the Bills issued by them?*—In different countries the provisions of law differ greatly, and some of them have proved very defective; but in Canada, by recent Acts of Parliament, the banks are not only incorporated institutions, but are required to have such an amount of bullion in their vaults, and such an amount of Dominion stock deposited with the Dominion treasurer in proportion to their paid-up stock and circulation, as best to secure the public against loss in case of any mismanagement on the part of any bank, or in case of failure on the part of any number of its debtors. But still the success of every bank depends chiefly on the prudence, wisdom and trustworthiness of its managers.

*Whence the necessity of Banks?*—Banks are necessary for the better security of money ; for the greater facility of payment and exchanges, both domestic and foreign ; and for the more advantageous use of capital. (*See notes at the end of this lesson.*)

*What are the principal kinds of Banks?*—The principal kinds of banks are banks of deposit and exchange, banks of discount or loan, banks of circulation or issue. Our banks perform all three of these functions. "They receive and pay out money on deposit, and keep all the accounts necessary in these transactions ; they loan money at interest, and collect money so loaned ; and they also issue their own promissory notes, payable in specie on demand." There are also savings banks, established to encourage economy among labourers and persons of slender means, by receiving small sums to be placed at compound interest, and returned on demand or at certain specified periods. There are likewise other institutions partaking partly of the character of banks, such as building societies, land credit companies, &c.

#### NOTES ON BANKING INSTITUTIONS—THEIR NECESSITY AND UTILITY.

1. The term *bank* is derived from the Italian word *banco*, a bench or table, on which the Venetian money-changers displayed and trafficked in their money. When one of these money-lenders failed, his *bench* was *broken* ; and hence the origin of the word *bankrupt*.

2. "The ancient bankers were called by the Romans *argentarii* and *numularii*, money-changers ; and by the Greeks *trapezitei*, *kollubistai*, and *arguramoiboi*, money-changers, or money-brokers. Their chief business was to put the money of private persons to interest. They had their boards and benches for this purpose in all the markets and public places, where they took the money from some to lend to others."—(*Encyclopædia Britannica*).

3. The establishment of banks arises from the necessities of civilized society, a large portion of whose labour consists in exchanges. Without the agency of banks exchanges could be effected only to a very limited extent, and at great risk and expense. Every individual would have to be his own banker; keep on his premises the whole amount in the precious metals necessary to effect his exchanges or transact his business; and guard his property both by day and by night. In making his exchanges or payments, he would have to transport his gold and silver from one place to another. A large amount of labour would be expended, and a large number of persons employed, in carrying gold and silver from one merchant to another in the same place, and between the merchants of different places. Besides, the money must be counted by both parties, which, in large transactions, would consume much time, require many additional agents, and cause great wear and tear to the coin, the effect of which "would be to increase very greatly the cost of exchanges, that is, the price of products."

4. But the inconveniences and difficulties of this cumbrous system of exchange are obviated by the agency of a bank, with which the merchants and traders in the town or neighbourhood lodge their money for safe keeping; the bank opening an account with each depositor, crediting him with whatever he deposited, and debiting to him all he withdrew. In such case, "if A owed B one thousand dollars, he would not send to the bank and withdraw the money for B to replace it again, but would give to B an order for one thousand dollars, which order B would present to the banker, and the one thousand dollars would be withdrawn from A's account by being charged to him, and would be added to the account or credit of B. If B owed C, he would do the same; C would do the same to D; and perhaps D would owe A, and would pay him in the same manner. At the close of the day their accounts at the bank would stand just as they were in the beginning; and yet there have been four payments made and received of one thousand dollars each. Yet not one cent of specie has been touched, not a dollar of it has been counted. It has been all done by a few entries made in the books of the bank, and done in a few minutes. In this manner the writing of a few lines saves all the labour of repeated transportations, of as frequent

counting of coin, and also all the cost of wear which must arise from every such operation. Besides, inasmuch as no more vigilance is necessary to secure from depredation the whole sum of specie than any part of it, it is evident that great additional labour is saved in this respect also."—(*Dr. Wayland's Elements of Political Economy*, p. 227.)

5. The establishment of two or more banks, or bank agencies, in the same town does not alter the mode of exchange. Supposing that parties dealing with each other transact their business at different banks, and A pays B in check on the first bank, and B deposits the check in the second bank; and B pays C in a check on the second bank, which C deposits in the first bank. "At the close of the day these banks exchange checks; and thus, without any labour, or counting, or transportation, by merely writing a few words in a bank ledger, the whole transaction is completed. It is hardly possible to find a case in which, by the division of labour, a greater increase of productiveness is given to human industry."—(*Dr. Wayland's Elements of Political Economy*, p. 228.)

6. The case is the same in payments and receipts between dealers resident in different towns of the same country and in different countries. This is done chiefly through the agency of banks, which have great facilities for such transactions, as they have large capital at command, have direct intercourse with each other, have agencies or connections in the principal towns of the country, and agencies or correspondents in New York, and in London, England, and some of them in other foreign cities. If a dealer in the country wishes to make a payment to his creditor in Toronto, he goes to the nearest banker, and buys what is called a *draft*, or *bill of exchange*, which is a written order or request addressed by the manager of the bank where the bill is purchased to the manager of the corresponding bank in Toronto to pay to the order of the person named in it the sum of money mentioned. The Toronto dealer either transfers the draft or bill of exchange to some creditor of his own, or presents it to the bank or which it was drawn, and receives the amount of it in the bills of the bank, or has it credited to him in his account with the bank. In the same manner are the mutual debts paid between dealers in

Toronto and Montreal ; and in the same manner do Canadian importers of European and American manufactured goods pay the manufacturers and merchants from whom they make their purchases. The sums realized by the sale of the lumber, wheat, flour, &c., exported from Canada to England are deposited in the English banks, and made available to pay Canadian bills of exchange in behalf of English merchants and manufacturers. If the exports from Canada to England equal in value the exports from England to Canada, the accounts are balanced without any money being sent from one country to the other by letters and orders, or bills of exchange, transmitted at little risk or expense. "The banks exchange these drafts or bills of exchange with each other, and collect the proceeds, receiving a percentage for their trouble. Thus these debts mutually cancel each other without removing the specie from one place to another, and with only the labour of making a few entries in the ledger. In this manner the amount of money necessary to perform the exchanges of a country is greatly diminished, and all the loss to which money *in transitu* is exposed is avoided."—(*Dr. Wayland's Elements of Political Economy*, p. 229.)

7. "Bills of exchange," says Mr. Mill, "having been found convenient as means of paying debts at distant places without the expense of exporting the precious metals, their use was afterwards greatly extended from another motive. It is usual in every trade to give a certain length of credit for goods bought—three months, six months, a year—according to the convenience or custom of a particular trade. A dealer who has sold goods for which he is to be paid in six months, but who desires to receive the amount sooner, draws a bill on his debtor payable in six months, and gets the bill discounted by the banker, that is, transfers the bill to him, receiving the amount minus interest for the time it has still to run. It has become one of the chief functions of bills of exchange to serve as a means by which the debt due from one person can thus be made available for obtaining credit from another."—(*Principles of Political Economy*, Vol. II., Book III., chap. xi., sec. 4.)

8. In all these transactions the functions of the banks are chiefly those of *deposit* and *exchange*. But in the functions of *discount* or

loan banks are no less important to the community. Lord Overstone, in his evidence before a committee of the House of Commons, remarked: "The whole principle of banking is to afford capital—to transfer it from the inactive accumulator to the active and energetic person who wants the capital. The banker is the go-between, who receives deposits on the one side, and on the other applies those deposits, entrusting them in the form of capital to the hands of active, energetic persons, who he thinks will make a good use of it; to persons of character who, in some cases, have no security to give, but who, in all cases, have no security to give equal to the amount advanced to them, except that best form of security, their character, their energy, and their prudence."\* But Chambers observes, "The safest kind of credit is that which is given on property, not on the faith of the debtor."—(*Chambers' Political Economy*, p. 135.) Banks greatly serve the interests of material progress by their bringing together the lenders and borrowers; by bringing the wants of both parties to act upon each other; by saving of time, trouble and expense in effecting loans, accomplishing in a few minutes what would otherwise require hours, if not days; and contributing to the punctuality of the whole community in financial transactions. Those who devote themselves to the one business of loaning and dealing in money, keep themselves at all times acquainted with the state of the money market, acquire skill in ascertaining the character and responsibility of individuals who desire loans, and the first indications of failure, either in skill or in fidelity, and to act accordingly.

9. But all our banks are not only banks of deposit, exchange, and discount or loan, but are also *banks of issue*—adding thereby, as well as by their exchanges, largely to the circulating medium of the country. The introduction of paper money, in the form of bank-notes, has rendered the greatest service to the public, while it has largely promoted the interest of individuals. The *Encyclopædia Britannica* remarks: "Its employment, and the various devices for the economising of currency to which it has led, enable the business of a commercial country like England to be carried on with a *fourth part*, perhaps, of the gold and silver

\* Quoted in the *Encyclopædia Britannica*, article "Money," Vol. XV., eighth edition, p. 450.



currency that would otherwise be necessary. The cheapest instruments by which exchanges can be effected are substituted for the dearest; and besides doing their work better, this substitution enables the various sums which must otherwise have been in use as money, to be employed as capital in industrial undertakings. Of the various means, whether by the introduction of machinery or otherwise, that have been devised for promoting the progress of wealth and civilization, it would not be easy to point out one better calculated to attain its end than the introduction of a properly organized paper money. . . . Though only the representatives of money, these notes possess so many of its qualities, and are so easily converted into coin, that they may, with little impropriety, be held to be money. Being most commonly issued by bankers, they are usually called bank-notes."\*

"A bank-note," says Chambers, "is simply an obligation to pay so much money to the bearer on demand; it does not profess to be actual money—merely a promise to pay money. Yet sometimes bank-notes are preferred to all other kinds of money, even to gold. They are more convenient for being packed up and carried about; for a note for £100 may be a small bit of paper, not weighing so much as a fourpenny piece. Bank-notes, too, when lost or stolen, are more likely to be traced than gold, as each one is peculiar, and they are of no use when defaced. For these, and many other reasons, paper money is often more convenient than bullion."—(*Chambers' Political Economy*, p. 121.)

If the use of paper money has increased the productive capital of Great Britain fourfold for the purposes of business, it has probably increased that of Canada in a much larger proportion, with corresponding advantages to all branches of business and to all classes of the community. There are of course drawbacks, from the mismanagement of individual banks and the imprudence or dishonesty of individual borrowers; but altogether, the general benefits of the banks cannot be easily over-estimated.

10. I have not thought it needful, in these first lessons, to discuss the large question of currency and banking, but simply

\* Article "Money," Part II. Paper Money, Vol. XV., eighth edition, p. 446.

to explain the relations of currency and banks to commerce and society at large, and to show that these institutions, while profitable to their projectors, are of the highest importance to the various material and social interests of the whole country.

11. Nor do I deem it necessary to discuss the duty of the Government and Legislature, in respect to banking institutions, currency and exchange, so as to protect the public against injustice and loss. The provisions of recent Acts of the Dominion Parliament in regard to the constitution, restrictions, and responsibility of banks, and the frequent publicity of their affairs, are the results of the experience of other countries both in Europe and America, as well as that of our own country, and amply secure the public, without being unjust to the banks, in respect to bank-notes, now so universally preferred in business transactions to gold and silver.

## PART III.

DISTRIBUTION OF THE PROFITS OF  
LABOUR AND CAPITAL.

## LESSON XVIII.

DEFINITIONS AND EXPLANATIONS: LABOUR AND ITS PRICE; THREE  
PRINCIPLES ON WHICH THE VALUE OF LABOUR DEPENDS.

NOTE.—In lesson xii. I have shown that value is the creation of labour united to capital.

*What is Distribution in Political Economy?*—Distribution in political economy is the equitable division of the profits of labour and capital. When the same person owns the capital and performs the labour, the whole increase of value becomes his exclusive property; but when one person owns the capital and another person performs the labour, the increased value belongs to both of them, that is, a share of it is the portion of each. The object of this Third Part of Political Economy is to ascertain the principles on which the division or *distribution* of this profit or increased value shall be effected.

*But when a variety of Labourers is employed in an Operation, and when the Capital employed varies in Value, how are the Profits then to be Distributed?*—The distribution of profit will belong to each labourer according to his skill and talents, and be assigned to a given amount of capital.

*Is not the Remuneration in these cases arranged by the Mutual Consent of the parties concerned?*—Yes; but it is

important to ascertain the principles on which this mutual consent is founded.

*How should this Subject be investigated?*—We should consider first the price of labour, called *wages*; secondly, the price of capital or money, called *interest*; and if the capital is in the form of land, the price of it is called *rent*.

*How many kinds of Labour are there?*—"Labour may be divided into two kinds: first, *Simple labour*, or that which is unconnected with previously acquired skill; and second, *Educated labour*, or that in which industry is combined with the results of previous education."

*On what Principles does the value of Labour rest?*—The value of labour depends on three things: first, *Cost*; second, *Supply and demand*; third, *Special circumstances*, by which the principles of cost and supply and demand are modified.

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## LESSON XIX.

### COST—THE FIRST PRINCIPLE OF THE VALUE OF LABOUR.

*What Elements enter into the Cost of Simple or Unskilled Labour?*—The chief elements in the cost of simple or unskilled labour are the following:—

1. Health and muscular strength—strength of arm, leg and back—for the work required, as also food, clothing, shelter, fuel, at all times, and occasionally medicine and medical attendance. These are the necessities of life, and without them a man cannot labour; and his wages must be adequate to procure them.

2. Labourers have families as well as others, otherwise the race of labourers would soon become extinct. The

wages of the labourer must be such as to enable the labourer to provide food, clothing and shelter not only for himself, but also for his family. The great mortality in the offspring of many labourers, especially at certain seasons, is chiefly owing to want of food, clothing and shelter.

3. The wages of labour should be sufficient to enable the labourer to provide something for his support in the decrepitude of old age, when he is either utterly disqualified for labour, or his labour is insufficient to support him.

4. The natural cost of simple labour may therefore be considered such as is necessary to provide him and an ordinary family with healthful food, clothing, fuel and shelter, and something for the support of old age; and his wages should be sufficient for these purposes. "This, however, presupposes the labourer to be industrious, virtuous and frugal. If he be improvident, indolent, intemperate, profligate, and thus either does not earn a competency, or else, having earned it, squanders it in vice, the fault lies not in his wages but in himself. Of course, the correction must come not from a change in wages, but from a change in habits."

*What Elements enter into the Cost of Skilled or Educated Labour?*—All the elements which enter into the cost of unskilled or simple labour, enter equally into the cost of skilled or educated labour; but, in addition, there must be added to the latter the cost of the special training and education for its efficient performance. The *tradesman* or *mechanic* must acquire a certain amount of education, and pass through a certain apprenticeship, before he can perform his labour. During the process of his education

he earns nothing, not even food or clothing, but spends much time and means in acquiring his preliminary education; and during his *apprenticeship*—at least during a part of it—he earns little or nothing, but clothes and supports himself while learning his trade. Sometimes the apprenticeship itself extends over a period of several years. The lowest cost, therefore, of the educated labour, is that which, in addition to the cost of simple labour, is sufficient to remunerate the outlay of time and money in acquiring the requisite skill for such labour, whether that of a clerk in a shop or warehouse, a bookkeeper, a jeweller, a cabinet-maker, blacksmith, carpenter, &c.; and the wages of educated labour should, of course, be as much higher than the wages of uneducated labour as its cost is greater.

But the cost of educated labour preparatory for the learned *professions* is much greater than that for artisans, mechanics and manufacturers. In these professions every student spends several years as a pupil in preparing for his professional studies; some spend also four years in college, and finally three years in professional studies, before they are admitted to practice. During the whole of these long years of preparation the student earns nothing, but must be fed, clothed, furnished with books, and must pay considerable sums for his tuition. Now, had the sums thus expended on his preparatory education been carefully invested at interest from time to time, they would have amounted to a considerable annuity. The means to meet all these expenses must be provided from some source before he commences his profession; and he is fairly entitled to such wages, or remuneration for his labour, in addition to the price of simple labour, as will compensate for the time and money expended in his preparatory education.

## LESSON XX.

## SUPPLY AND DEMAND—THE SECOND PRINCIPLE OF THE VALUE OF LABOUR.

*Of what kind of Labour is the Demand and the Supply most general and constant?*—The kind of labour for which there is the most general and constant demand is that which is required to produce the necessaries of life—food, clothing, fuel and shelter. Every human being needs these, and unless they can be procured for him he must die; and as these are all consumed or perish by use, the demand for them is imperative and constant. The labour needed to produce these necessaries of life is, for the most part, simple labour—a labour which requires no apprenticeship, only healthy human beings, with little or no preliminary training. The supply of this kind of labour is more abundant and constant than the supply of any other labour, as the demand for it is most general and unremitting.

*How is the variation in the Value or Wages of Labour affected by the Demand and Supply?*—"The principle which truly governs wages, is the relation between demand and supply. Labour resembles an article for sale: the workman is the seller of the article, and the employer is the buyer. The cost of the article, therefore, as in buying all other articles, must necessarily depend on the quantity for sale and the number of parties wanting to purchase. If two employers want only one workman each, and there be as many as three workmen for each, that is, six instead of two men wishing work, then there is plentifulness of labour in the market, and wages fall; because the six men, who must find a livelihood,



compete against each other. If, on the contrary, there be only two workmen offering themselves for hire, while there are six employers wanting them [and therefore competing against each other], then the wages will rise."—(*Chambers' Political Economy*, p. 93.)

*But are not Employers and Workmen mutually dependent upon each other?*—Yes; and so are buyers and sellers. If there be no seller, the buyer must starve or be destitute; and if there be no buyer, the seller cannot subsist. "Both these parties are equally necessary to each other. If the labourer could not procure work, or could not exchange his labour for some value which he created, he must starve. If the capitalist could not create value from the employment of his capital, he must starve also. He could neither eat, drink nor wear his looms, spinning-jennies, ships, iron, or cotton. Both, therefore, come into the market on equal terms; each needs the product of the other; and under these circumstances, they will each receive less or more, in consequence of the conditions under which the exchange is made."—(*Dr. Wayland's Elements of Political Economy*, p. 301.)

*And does not the Value or Wages of Labour depend upon the ratio of Capital to Labour, as well as upon the relations of Demand and Supply?*—Certainly. As the same author expresses it: "Every capitalist wishes to have all his capital united with labour, since that which is not thus united will be useless to him; nay, it would generally diminish in actual value. On the other hand, in a given state of the arts, the labour of a single man can be applied to but a given amount of capital. Hence, the number of labourers whom any single capitalist will require will be in proportion to the amount of his capital. If a

capitalist of ten thousand dollars require ten labourers, one of one hundred thousand dollars will require one hundred labourers. And so, in general, the greater the amount of capital employed in a country, the greater the course will be the number of labourers employed. As now every capitalist will wish to employ all his capital, if the number of labourers be insufficient to supply the demand, there will be a competition among capitalists for labourers, and they will offer higher wages. And the reverse will take place in the opposite case. Suppose the number of labourers be too great to be employed by the existing amount of capital. A capitalist whose capital will occupy but one hundred, cannot employ one hundred and fifty labourers; hence there will be a competition among labourers for work. Hence we see that at any given time and place, the demand for labour and the wages of labour will be in the proportion to the ratio that the active capital of a country bears to the number of labourers in that country."—(*Dr. Wayland's Elements of Political Economy*, pp. 301-302.)

*Is not free Competition then the true Regulator of Wages in a Free Country?—Yes.* "The laws regulating wages depend upon circumstances beyond the power of capitalists or labourers. The rich cannot refuse to employ labourers without loss, and the workmen cannot refuse to work without loss; and the competition which naturally exists in a free country is all that is necessary to bring wages to their proper level, that is, to all that can be reasonably paid for them. Hence combinations among capitalists or labourers are not only useless, but expensive and unjust. They attempt to change the laws by which remuneration is governed, and they must by consequence thus be useless; they expose capital and labour to long periods of idle-

ness, and thus are expensive ; they assume the power of depriving the capitalist of his right to employ labourers, and the labourer of his right to dispose of his labour to whomsoever and on whatsoever terms he pleases, and hence they are unjust. And combinations of this kind are as unjust when undertaken by the rich as by the poor."—(*Dr. Wayland's Elements of Political Economy*, p. 303.)

NOTE.—Chambers, of Edinburgh, forcibly remarks on the same subject as follows: "Occasionally it has been represented that employers, in paying workmen, should raise their wages when provisions and other articles become dear. Undoubtedly the employer, as a matter of humanity and duty, ought not to pinch or screw down the wages of his workmen ; on the contrary, he should pay them the fair market value of their labour, and in a way as agreeable to their feelings as possible. Beyond this the employer cannot with safety go. The manufacturer is competed against by other manufacturers ; he requires much skill, with every species of economizing, to obtain the reward of his exertions, and even to avoid loss ; and he must, consequently, pay no higher wages than others. If he pay high wages and reject the applications of those who will work for less, then others will employ these cheaper workmen, and he will be undersold in the commodities which he produces. This, however, could not go on long, and he would be speedily ruined. If there were not others who would employ these cheaper workmen, their fate would be still worse—they would get no employment, and must starve.

"Wages, therefore, are not determined by matter of feeling or chance, but by certain conditions of the labour market. Sometimes a select body of workmen combine to enforce a higher rate of wages than the market value allows. This is clearly an injustice to those who are willing to give their services at a lower rate. The consumers of the article are also treated with injustice, because they are forcibly compelled to take dear labour when cheap labour is to be had. Such unjust attempts frequently end in the ruin of those who make them, and it happens in this way: their occupations are generally easily learned, otherwise they

would not require to combine to keep up their wages ; where much talent and exertion are embarked, their owners secure high wages without combining. When there is a combination to keep the price of a simple species of labour unreasonably high, the men are turned off, and others are employed in their stead who may at first be ignorant of the trade, but soon become acquainted with it ; then when the combiners come to their senses, they see the number of the trade is doubled, and that they must be content with less wages than ever, or go without work. Some large classes of workmen have been greatly damaged in this way.

“In some situations there is shown a disposition on the part of workmen to ask favours of employers—as, for example, seeking to absent themselves on holidays without a corresponding abridgment in the amount of wages. This seems to be as wrong as it would be for the employer to ask his workmen to labour certain days for nothing. The rights and obligations are distinctly mutual. One has no right to encroach on the other ; and indeed there can be no encroachment, no favour on either side, without a certain loss of independence. This feeling of independence should be carefully cultivated and preserved, along with those habits of courtesy which soften the general intercourse of society.”

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## LESSON XXI.

THIRD PRINCIPLE OF THE VALUE OF LABOUR—SPECIAL CIRCUMSTANCES BY WHICH THE PRINCIPLES OF COST AND SUPPLY AND DEMAND ARE MODIFIED.

*What are the Five Reasons given by Adam Smith, in his “Wealth of Nations,” to account for the different Prices or Gains of different Employments or different kinds of Labour ?—They are as follows : “First, The agreeableness or disagreeableness of the employments themselves ; Second, The easiness and cheapness, or the difficulty and*

expense of learning them ; Third, The constancy or inconstancy of employment in them ; Fourth, The small or great trust which must be reposed in those who exercise them ; and Fifth, The probability or improbability of success in them."—(*Wealth of Nations*, Book I., chap. x.)

*Illustrate by Examples each of these Propositions*!—First, The wages of labour vary with the ease or difficulty, the pleasure or pain of the employment. The labour of the tailor is lighter and cleaner than that of the blacksmith, and his wages are less. The labour of the workers under ground—miners and colliers—is more severe and disagreeable than that of farm labourers and other workers on the surface of the ground, and therefore the wages of the former are much higher than those of the latter. There is a similar variation in the wages of various other employments, according to their ease or hardship, their agreeableness or disagreeableness.

Second, The wages of labour vary according to the facility or difficulty, cheapness or expensiveness, of learning the particular businesses. There are several sorts of labour which a man may perform with little or no previous instruction ; while there are many employments which can be carried on by those only who are instructed in them by education and practice, and in many instances by those only who, in addition to education and practice, possess special endowments or talents. "Suppose," says Mr. McCulloch, "that the education of a skilled labourer and his maintenance down to the period when he begins to support himself, cost £300 more than was required for the maintenance of an unskilled labourer down to the same period ; it is plain that, to place these individuals in the same situation, the skilled labourer should earn

as much over and above the wages earned by the one that is unskilled, as may be sufficient not only to yield the usual rate of profit on the extra sum of £300 expended in his education, but also to replace the sum itself previously to the probable termination of his life.”—(*Principles of Political Economy*, Part III., chap. i.)

Adam Smith quaintly but forcibly illustrates the same principle as follows:—“When an expensive machine is erected, the extraordinary work to be performed by it before it is worn out, it must be expected, will replace the capital laid out upon it, with at least the ordinary profits. A man educated at the expense of much labour and time to any of those employments which require extraordinary dexterity and skill, may be compared to one of these expensive machines. The work which he learns to perform, it must be expected, over and above the usual wages of common labour, will replace to him the whole expense of his education, with at least the ordinary profits of an equally valuable capital. It must do this in a reasonable time, regard being had to the very uncertain duration of human life, in the same manner as to the more certain duration of the machine. The difference between the wages of skilled labour and those of common labour, is founded upon this principle. The policy of Europe considers the labour of all mechanics, artificers and manufacturers, as skilled labour; and that of all country labourers as common labour. . . . It is reasonable, therefore, that in Europe the wages of mechanics, artificers and manufacturers should be higher than those of common labourers. . . . Education in the ingenious arts and in the liberal professions is still more tedious and expensive. The pecuniary recompense, therefore, of painters and sculptors, of lawyers and physicians,

ought to be much more liberal."—(*Wealth of Nations*, Book I., chap. x.)

Third, The wages of labour, in different occupations, vary with the constancy or inconstancy of employment. "Employment is much more constant in some employments than in others. In the greater part of manufactures, a journeyman may be pretty sure of employment every day in the year that he is able to work. A mason or bricklayer, on the contrary, can work neither in hard frost nor foul weather, and his employment at all other times depends upon the occasional calls of his customers. He is liable, in consequence, to be frequently without any. What he earns, therefore, while he is employed must be sufficient to support him while he is idle. No species of skilled labour, however, seems more easy to learn than that of masons and bricklayers. The high wages of those workmen, therefore, are not so much the recompense of their skill, as the compensation for the inconstancy of their employment. A house carpenter [or cabinet-maker] seems to exercise rather a nicer and more ingenious trade than the mason. In most places, however, for it is not universally so, his day wages are somewhat lower. His employment, though it depends much, does not depend so entirely upon the occasional calls of his customers; and it is not liable to be interrupted by the weather."—(*Wealth of Nations*, Book I., chap. x., p. 47.)

It is upon the same principle we pay more for riding a mile in a cab than in the stage coach. The cabman may stand half a day before he gets a customer. I once called a cabman towards evening to convey me a mile or so, and when I paid him, he told me it was the first shilling he



had received during the day. When the opportunities of employment are thus rare, the wages for each particular operation must be greater, since we must pay not only for the time actually employed, but also for the time that is lost by the labourer while waiting for employment.

Fourth, The wages of labour vary according to the small or great trust which must be reposed in the workman. An employee entrusted with money, or the care of an establishment, or the management of a piece of work, is entitled to higher wages than one entrusted with no such charge and responsibility. On this subject Dr. Wayland remarks: "If the manager be careless, he may destroy by negligence what is entrusted to him; and if he be dishonest, he may convert it to his own emolument. Now this union of judgment with incorruptible integrity is absolutely necessary in many operations of production. On this account, though the wages of such persons are high, it is generally found more economical to employ them at any price, than to entrust important affairs to the incompetent and the vicious. This is one of the rewards which, in the course of human events, God bestows upon wisdom and virtue."—(*Elements of Political Economy*, Book III., chap. ii., sec. 2, p. 312).

On the same subject Adam Smith thus expresses himself: "The wages of goldsmiths and jewellers are everywhere superior to those of many other workmen not only of equal, but of much superior ingenuity, on account of the precious materials with which they are entrusted.

"We trust our health to the physician; our fortune, and sometimes our life and reputation, to the lawyer and attorney. Such confidence could not safely be reposed in people of a very low condition. Their reward must

be such, therefore, as may give them that rank in society which so important a trust requires. The long time and the great expense which must be laid out in their education, when combined with this circumstance, necessarily enhance still further the price of their labour."—(*Wealth of Nations*, Book I., chap. x., p. 47).

Fifth, The wages of labour in different employments vary according to the probability or improbability of success in them. This cause of variation affects chiefly the wages of the higher class of labourers, or of those who practise what are called the liberal professions. "In the greater part of the mechanical trades," says Adam Smith, "success is almost certain, but very uncertain in the liberal professions. Put your son apprentice to a shoemaker, there is little doubt of his learning to make a pair of shoes; but send him to study the law, it is at least twenty to one if ever he makes such proficiency as will enable him to live by the business. In a profession where twenty fail for one that succeeds, that one ought to gain all that should have been gained by the unsuccessful twenty. The counsellor-at-law who, perhaps, at nearly forty years of age, begins to make something of his profession, ought to receive the retribution not only of his own so tedious and expensive education, but of that of more than twenty others who are never likely to make anything by it. How extravagant soever the fees of a counsellor may sometimes appear, their real retribution is never equal to this. Compute in any particular place what is likely to be annually gained, and what is likely to be annually spent, by all the different workmen in a common trade [such as the trade of the shoemaker or tailor], and you will find that the former sum will generally exceed the latter. But make the same computation

with regard to all the counsellors and students of law in all the different inns of court, and you will find that their annual gains bear but a very small proportion to their annual expense, even though you rate the former as high, and the latter as low, as can be done. The lottery of the law, therefore, is very far from being a perfectly fair lottery ; and that, as well as many other liberal professions [as philosophy, literature, poetry, painting, music, &c.], is, in point of pecuniary gain, under-recompensed.

“These professions keep their level, however, with other occupations, and notwithstanding their discouragements, all the most generous and liberal spirits are eager to crowd into them. Two different causes contribute to recommend them : first, the desire of the reputation that attends upon superior excellence in any of them ; and second, the natural confidence which every man has, more or less, not only in his own abilities, but in his own good fortune.”—(*Wealth of Nations*, Book I., chap. x., p. 48.)

NOTE.—*Practical Observations*.—Mr. J. R. McCulloch has the following suggestive remarks on the principles defined and illustrated in the foregoing lesson : “It has been sufficiently proved that the permanent differences that obtain in the wages paid to those engaged in different employments in countries where industry is perfectly unfettered, are rarely more than sufficient to balance the favourable or unfavourable circumstances attending them. When the cost of their education, the chances of their success, and the various disadvantages incident to their professions, are taken into account, those who receive the highest wages are not really better paid than those who receive the lowest. The wages earned by the different classes of workmen are equal, not when each individual earns the same number of shillings or of pence in a given space of time, but when each is paid in proportion to the severity of the labour he has to perform, to the degree of education and skill that it requires, and to the other causes of variation already specified. So long, indeed, as the

principle of competition is allowed to operate without restraint, or individuals may employ themselves as they please, we may be assured that the higgling of the market will adjust the rates of wages in different employments on the principle now stated, and that they will be, all things considered, nearly equal.

"Agriculturists, manufacturers, and merchants, whether their businesses be large or small, are always most anxious to give the greatest efficacy to their establishments, to adapt their means properly to their ends, and to select the parties that are, all things considered, the most suitable for their purposes. In a society like this, integrity, skill, and industry are sure to be duly prized and appreciated. And yet there have been, and still are, persons calling themselves social reformers and friends of the poor, who propose that this admirable system should be subverted, and a meddling despotism substituted in its stead; that the rewards of industry should no longer be apportioned according to the fair and equitable arrangement of the parties concerned, but that the employment and wages of every man should be determined by agents nominated by government for that purpose! We should show but little respect for our readers were we to waste their time in refuting such palpable absurdities. The abuses to which the adoption of such a scheme would infallibly lead, would be such that it could not be maintained for any considerable period; if it were, it would fill the land with robbery, injustice and ruin."

—(*Principles of Political Economy*, pp. 394, 395.)

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## LESSON XXII.

### WAGES, OR PROFIT OF CAPITAL.

NOTE.—In the four preceding lessons I have treated of labour and its wages; the different kinds of labour or employments; the principles and circumstances by which the wages of different kinds of labour or employments are determined; and how, by free competition, the value of labour is, in all cases and under all circumstances, voluntarily and equitably adjusted by the parties

concerned. I now proceed to consider *wages of capital*—what is due to capital and to the capitalist, as I have considered what is due to labour and to the labourer.

In lesson iv., p. 18, capital is defined as "everything which is employed in production except the labour; namely, the material on which the labourer works, the instruments with which he works, the means of his support whilst thus at work, and the result of his work in its products." In the same lesson, under the forms of capital, money, land and all descriptions of property are also included. But capital, in connection with labour, is that part of the property of an individual, or of a company, or of the community, which the owners must employ for the purposes of production.

*What is meant by the Wages of Capital?*—By the wages of capital is meant the profits which a capitalist derives from his investment and expenditure in production or business, the same as by the wages is meant the profits which a labourer derives from his toil and skill.

*How is Capital beneficial to Labour and to the Labourer?*—Without capital labour could not be employed, and the labourer could not exist; and in proportion to the amount of capital employed in business will be the demand for labour and the employment of labourers.

**NOTE.**—The power of the labourer consists of two things—*muscular force* and *skill*. By the former, the labourer is capable of common labour only—of the exertion of mere muscular or brute force, in lifting, carrying, &c.; by the latter, the labourer can avail himself of natural agents and tools or machinery to supplement his own muscular force, and render it more productive. But the common labourer cannot turn his own strength to account without an employer, who must have and employ capital to pay the labourer; and the skilled labourer—a blacksmith, for example—cannot exert his skill, as well as muscular force, without a forge, an anvil, a hammer and other tools, iron, coal, and a shop, which cannot be procured without capital; and the capitalist is

entitled to remuneration for the price, and wear and tear of the tools and shop which he furnishes, or the interest on the money which he lends to the blacksmith to enable him to avail himself of his skill in labour. Thus capital is the life-blood of labour as labour is the hands of capital; and the workman, whether skilled or unskilled, is entitled to remuneration for his labour according to the principles explained and illustrated in the preceding lessons.

The value of capital is reckoned in the form of *money*, and is often furnished in that form. In the case above supposed, it is not likely that a blacksmith would borrow the shop, tools and materials, but would borrow the money with which to procure them; but there could be no money-borrowers unless there were money-lenders or money-lending institutions; and were there no money-lenders, the industrious artizan who would be a money-borrower would be the greatest sufferer. One money-lender may be exacting and avaricious, while another is honourable and just; so one money-borrower may be fraudulent and profligate, while another is honest and prudent. If the money-lender lends for his own interest, so does the money-borrower borrow for his own interest. It is not a matter of *benevolence* on either side, but it is a matter of *business* on both sides; and the business is as honourable on one side as on the other, the same as the letting and renting of a house, or the selling and buying of goods.

There is another way in which capital is beneficial to labour and to labourers. In a village without capital there would be opportunity for only simple labour and at the lowest wages, and the inhabitants would be poor and would have little means or prospect of being otherwise; but if a man of capital establish a manufactory sufficient to employ the villagers and their neighbours who might be disposed to work, every one knows that there wages would thus be doubled, and the comforts of living proportionably increased.

Since, then, all products are the results of the co-operation of labour and capital, and as we have considered in the preceding lessons the share of the results or profits, or wages, to which the labourer is entitled, *What is the Remuneration to which the Capitalist is entitled; or, On*

*what Principles should the Wages of Capital be regulated ?*

—The wages of capital should be regulated upon the same principles as those of labour: according to cost, and skill, and risk.

*How may these Principles be ascertained ?*—These principles may be ascertained by the nature of the capital employed and the mode of employing it; whether the capital consists of money, or of manufactures, buildings, ships, lands, &c., let or hired, or whether it be employed by and under the superintendence of the capitalist.

*Suppose, then, the Capital to consist of Money lent for the purposes of Production.*—Then the price or wages of the money lent, called *interest*, must depend upon the following circumstances:—

1. The ratio between supply and demand. The greater the supply of capital in relation to the demand, the lower its price or rate of interest; and the greater the demand in relation to the amount of capital, the higher the rate of interest. This is the principle which regulates the price of all kinds of products and property.

2. The productiveness of industry enhances the price of capital, as when the productiveness of a given amount of capital in the use of natural agents or in a machine is very great, a man will give more for money thus to invest, and the price of capital will be kept up or increased. The same will happen when a man in mercantile business can sell his stock at good profit several times in the course of a year; he can afford to pay higher interest than when he must keep his goods on hand a year or two. The same is the case when a man wishes to borrow money to invest in agriculture where the land is fertile, easily cultivated,



and the prices of products good. Such cases suppose men to be carrying on business partly or altogether on borrowed capital.

3. The price of money is also affected by the *risk of investment*. When a capitalist lends money there is always some risk that he may not be repaid, and the greater the risk the higher the interest which he may justly demand. This risk depends upon several circumstances, of which three may be mentioned :—

First, The character of the borrower ; his industry, skill, knowledge of business, pecuniary ability, integrity, honesty ; whether he has conducted business successfully or failed in it ; his punctuality in making his payments and fulfilling all his engagements.

Second, The nature of the business for which the money is borrowed, and the security for its repayment. " Property at sea is more liable to destruction than property on land. Property in merchandise is more liable to be destroyed than property in houses ; property in houses than property in farms. A house in the country is safer than a house in town ; and a stone or brick house is safer than a wooden house. Property employed in the manufacture of cotton [or woollen, or hardware, tools or furniture,] is less liable to be destroyed than property employed in the manufacture of gunpowder. Now, when a capitalist loans money to be invested in some one of the above forms of capital, and his only security for payment consists in his hold upon the property in which it is invested, it is evident that his risk, other things being equal, will depend upon the safety of that property. Hence, it is reasonable that his remuneration for risk should correspond with the

greatness of the risk.”—(*Dr. Wayland's Elements of Political Economy*, p. 320). It is upon the same principle that insurances are made and undertaken on different kinds of property, and even upon life itself.

Third, The risk incurred in lending money depends upon the stability of the government, the provisions of the laws, and the administration of justice. When the stability of government has been doubtful, as at times in different kingdoms on the continent of Europe, and during the late civil commotions in the United States, and on some past occasions in Canada, the interest of money was high, while the value of other property was depreciated, and loans were obtained with difficulty; and many capitalists made large investments in the English funds at a low rate of interest, from the belief that the British Government was more stable, and property more safe under it than in any of the countries where the capital thus invested had been accumulated. Even where the stability of the government is not considered doubtful, but where the laws affecting property and debts are defective and the administration of justice doubtful, as in some of the neighbouring states, the interest on money is very high, as the risk of it is so great. “Hence,” says Dr. Wayland, “we see the economy of good legislation, and of a wise, just, and incorruptible judiciary. The additional interest on capital, incurred in consequence of a bad administration of justice in a country, would annually pay the expenses of all the courts of law, ten times over.”

But when capital is invested in business by the capitalist himself and under his superintendence, then *Upon what Principles is his Remuneration or Share of the Profits to be Regulated?*—His share of the profits from invest-

ments thus made is regulated upon the same principles as those already explained in respect to the wages of labour and the loaning of money.

1. The capitalist supplies the requisite buildings, materials, tools or machinery, and pays the wages of the labourers. For all this outlay, the risk, and the wear and tear, he should not only be indemnified for actual expenditure, but should have a reasonable profit; otherwise he would rather simply lend his money on good security at ordinary interest, than invest and risk it in manufactories or merchandise. As the wages of the labourer are the remuneration of his labour, so the profits of the capitalist are the remuneration of his self-denial in not otherwise using and enjoying his money, and of his enterprise in thus employing it for the purpose of production. Mr. Mill observes: "By lending his capital on unexceptional security he runs little or no risk; but if he embarks in business on his own account, he always exposes his capital to some, and in many cases to very great danger or partial loss. For this danger he must be compensated, otherwise he will not incur it."—(*Principles of Political Economy*, Book I., chap. xv., sec. 1.)

2. When a person not only invests capital in business but superintends the employment of it, then, as Mr. Mill says, "He must likewise be remunerated for the devotion of his time and labour. The control of the operations of industry usually belongs to the person who supplies the whole or the greatest part of the funds by which they are carried on, and who, according to the ordinary arrangement, is either alone interested, or is the person most interested (at least directly) in the result. To exercise this control with efficiency, if the concern is large and com-

plicated, requires great assiduity, and often no ordinary skill. This assiduity and skill must be remunerated."—(*Principles of Political Economy*, Book I., chap. xv., sec. 1.)

3. Again, "Sometimes the capital or a part of it is supplied by what is called a sleeping partner, who shares the risks of the employment but not the trouble, and who, in consideration of those risks, receives not a mere interest, but a stipulated share of the gross profits. Or, finally, the same person may own the capital and conduct the business, adding, if he will and can, to the management of his own capital that of as much more as the owners may be willing to trust him with. But under any or all of these arrangements the same three things require their remuneration, and must obtain it from the gross profit—abstinence, risk, exertion. And the three parts into which profit may be considered as resolving itself, may be described respectively as interest, insurance, and wages of superintendence."—(*Principles of Political Economy*, Book I., chap. xv., sec. 1.)

#### NOTES.

*Remarks on Capital, its Profits, and Relations to Labour.*—I have not thought it expedient in these first lessons to dwell upon what has been more than once alluded to in preceding lessons—the various employments and risks of capital, or the various kinds of capitalists, as corporations, companies, manufacturers, contractors, builders, tradesmen, and others who keep establishments of their own, and carry on business upon their own responsibility. I have confined myself to the brief explanation of principles applicable to capital invested or employed by all or any of them. But I think it proper to add some general and practical remarks made by writers of authority on capital, its profits, and relations to labour. Much of what has been written on this part of political economy is more especially applicable to the condi-

tions and relations of capital, manufactures, labour, land and rent, as existing in Great Britain and other European countries, and scarcely applies to a new country like Canada, where society, its capital and employments, are more simple and less complicated than in the old countries of Europe. I have condensed from them what seemed appropriate to my purpose, and I further select from them the following suggestive paragraphs :—

1. *The Interest of Money Loaned and the Profits of Trade compared.*—"All persons in business are occasionally, and most of them constantly, borrowers; while all persons not in business, who possess moneyed property, are lenders. Between these two great bodies there are a numerous, keen and intelligent class of middle-men, composed of bankers, stock brokers, discount brokers and others, alive to the slightest breath of probable gain. The smallest circumstance, or the most transient impression on the public mind, which tends to an increase or diminution of the demand for loans either at the time or prospectively, operates immediately on the rate of interest; and circumstances in the general state of trade, readily tending to cause this difference of demand, are continually occurring, sometimes to such an extent that the best mercantile bills have been known to vary within a year from two to three per cent. But at the same time and place the rate of interest is the same to all who can give equally good security. The market rate of interest is at all times a known and definite thing.

"It is far otherwise with gross profit, which, though it does not vary much from employment to employment, varies very greatly from individual to individual, and can scarcely be in any two cases the same. It depends on the knowledge, talents, economy and energy of the capitalist himself, or of the agents whom he employs; on the accidents of personal connection, and even on chance. Hardly any two dealers in the same trade, even if their commodities are equally good and equally cheap, carry on their business at the same expense, or turn over their capital at the same time. That equal capitals give equal profits, as a general maxim of trade, would be as false as that equal age or size gives equal strength, or that equal reading or experience gives equal knowledge. The effect depends as much upon twenty other

things as upon the single cause specified."—(*J. S. Mill's Principles of Political Economy*, Book II., chap. xv., sec. 4).

2. *Causes of High Rate of Interest in a New Country.*—In a new and prosperous country interest is always high. This results from several reasons. 1. Land is very *cheap*, and at first is all very nearly of the same market price; in many cases it can be had for almost nothing. 2. Land is very *fertile*. The produce of a soil when new is generally greater than ever afterwards. 3. The soil, never needing manure, requires but small investments of capital, and these are very richly repaid. 4. The inhabitants of a new country can carry with them but few of the conveniences of life; these must be purchased after they arrive there, and must either be made on the spot or be imported. Neither of these can be done without capital. And as the demand for these conveniences is imperative, and as the income of land is abundant, the settlers are willing to pay a high price for them. Hence the profit, both of mechanical and of commercial labour, is very great; and the price which is paid for capital is very high. 5. The inhabitants of a new country have generally numerous exchanges with the aborigines. Such exchanges are exceedingly profitable. But these cannot be carried on without capital; and of course capital, on this account, always bears a high price.

On the contrary, the supply of capital in a new country is generally small. 1. Emigrants are by no means the most wealthy class of a community. Those who are living in peace and prosperity at home are not generally those who are most willing to brave the perils and hardships of the wilderness. 2. Those who are not inclined to expose their *persons* to the hardships of a new country, are not inclined to send their capital where they are not present to watch over it themselves. Hence it is difficult for a while for a new people to borrow, and they can overcome this difficulty only by the payment of a high interest.

As a country becomes settled, however, these causes begin to operate less powerfully, and thus the rate of interest gradually diminishes. 1. The annual produce of the earth is year after year changed into fixed capital, and thus the demand for capital is supplied from themselves. 2. The fertility of the soil diminishes,

so that it will afford to pay less interest. 3. Land is sold at different prices, according to its fertility, and as it rises in price the degree of profit to the purchaser is diminished. 4. The wants of the natives are supplied, and hence one source of gain is dried up. 5. A more perfect knowledge of the country, and more perfect confidence in its prosperity, diminish the unwillingness of persons in older countries to loan; and hence capital from abroad may be procured with greater facility. Hence the gradual operation of these causes must tend to reduce the rate of interest in different countries to the same average.—(*Dr. Wayland's Elements of Political Economy*, pp. 326, 327.)

3. *The Advantages of Capital and its Relations to Labour.*—

“There can be no doubt that the possession of capital in a country is a great blessing to the people, whoever may possess it. People sometimes speak of it as if it were a means of tyranny and injustice, but the laws of a free country will not allow it to be used for such purposes. It is said the capitalist enriches himself without caring for others. This may be true; but in the very process of enriching himself, his capital does good to others, if they act industriously and wisely. People own this sadly enough, when by their conduct they drive capital away, as they sometimes do. The owner of a cotton-mill may be conducting it with great advantage to himself; but if he is compelled suddenly to stop, the loss will fall on many others. Many families will be deprived of bread until capital provides some other work for them.

“Thus it is the interest of all that capital should be well protected and saved from disturbance. Wherever there is danger of its being confiscated or destroyed, it takes alarm and passes away; hence in wretched eastern states (in Asia), where every rich man is liable to be pillaged by the government, capital will not remain. Revolutions and civil convulsions are very much against it, as the poor French have felt to their cost. After the Revolution of 1848 most of the great works were shut up, and the workmen went about starving or rioting.

“The workman sometimes grumbles because he works hard and is poor, while the owner of capital works little and is rich; he is sometimes mistaken about the working, as the management of capital is often a very hard task. But that the capitalist



should be rich can do him no harm, since it does not make the workman poorer; on the contrary, it makes him all the better off that he has good and constant employment. Perhaps the capitalist has made his money by his own hard labour—perhaps his father or his grandfather has made it and left it to him. At all events it is his property, and the workman is no more entitled to take it from him than any other person. There is, however, sometimes a lingering idea in the workman that he contributes greatly to swell the wealth of the capitalist, and that his poor wages are not a sufficient share of the produce. It is, however, beyond the power of the capitalist to make an unfair division. If there were only one in a country employing all the people, he might dictate his own terms; but there are, especially in this country, a great number of capitalists, all competing with each other. If one wants to have too much profit, then another will be content with less, and offer more wages. It is not in the power of the capitalist to keep wages below their market value.

“It is sometimes thought the employer is an utterly idle man, who obtains his wealth by the labour of others. But a well-managed establishment is a very difficult thing to keep up; and the more money embarked in it the more trouble and anxiety will it occasion. The workman paid from day to day is sometimes much more comfortable than his employer, who, apparently rolling in wealth, may be on the brink of ruin.

“There are sometimes conflicts between capital and labour, in which neither gains the victory, and they only succeed in doing each other great mischief. The capitalist cannot reduce the wages of labour, however much he may desire it; and on the other hand, the workman cannot participate in the profits of the capitalist. Sometimes workmen have thought it a wise policy to increase their demands at a time when they knew that their employer must produce goods at any cost to enable him to pay the debts he had incurred. In such circumstances the result of their efforts has generally been to make him a bankrupt, and then the establishment is broken up and they are driven out of employment.

“As capital does not derive its strength from artificial institutions but from nature, so its operations cannot be limited by law.

Any attempt to dictate what share should belong to the capitalist and what to the labourer, would make it disappear as snow before the sun. It is its nature to abide where it obtains the natural rate of profit; but if this is artificially reduced, it will disappear and be invested elsewhere. At the first French Revolution the tyrannical authorities undertook to lay down rules for profits and wages; but the capital of the country disappeared under their hands, and the people were reduced to a state of abject misery.

"Capital is, as we have seen, something saved out of the produce of past labour. Since it is so very useful, the world is indebted to him who so labours and saves. But it does not follow that it ought to be done unjustly or oppressively; nor should it be done to the neglect of other duties. A man who should neglect to educate his family that he might leave a fortune in their hands, has made a miserable selection for their happiness. He has left a powerful engine which they do not know how to use, and they are more likely to apply it to destruction than to usefulness.

"Since the conduct of him who creates capital is so beneficial, how contemptible is that of him who, on the other hand, squanders the capital which others have made. The money spent by the spendthrift being devoted to pleasure and vice, very little of it does the world any good. It becomes exhausted, as the wine he drinks and the horses he rides are exhausted. But the money spent by the capitalist, after feeding workmen and encouraging industry, comes back increased, to be spent in some useful shape.

"It must not be supposed, however, that all capital consists of great wealth. The capital of the humbler classes is a very material feature in this country. It is mentioned elsewhere that they have thirty millions in the savings banks; this is, perhaps, but a very small part of their capital. The possession of this humble capital, indeed, marks the difference between the savage and the civilized man. The mere savage thinks only of his daily wants. He does not lay by the fruit of past labour to facilitate his future labours: hence he is occupied almost every day in seeking for the day's food, and does not turn his attention to any higher object. Many of our working people are far too thoughtless and extravagant. They can seldom wait above a week at utmost for their wages, and then they spend them too rapidly;

but the most thoughtless of them are in a condition above the abject wretches who must employ the day in finding food to appease the first necessity of life. The share possessed by each may be of small amount, but taken together, it is of vast importance to the nation.

"The possession of capital is what all men ought to aim at, according to their position: in acquiring it they do a service to their neighbours, since they are less likely to become burdens on society. It serves them in a variety of ways; and if the workman feels that he is a slave to the capitalist, his best means of securing his freedom is to be the owner of a little capital himself. The greatest blessing conferred by it, however, is, that it gives the means of educating his children, and raising the condition of the offspring. There is nothing more gratifying to virtuous parents than the prospect of their children rising above their own condition."—(*Chambers' Political Economy*, pp. 97-102.)

4. *Competition*.—The following practical and lucid remarks on this important subject is from a little book, published in 1871 by the Society for the Promotion of Christian Knowledge, entitled, *Popular Essays on Political Economy*, by G. K. Rickards, M.A., late Professor of Political Economy at the University of Oxford. The following extract is from his third essay, headed "Competition:"—"It is almost needless to say that no man, *as far as he is a producer*, likes competition. It is not natural that he should do so. Every man who has anything to sell would prefer to sell dear. Every grocer, carpenter, or tailor in a town would naturally like to be the only one of his trade in the place. But competition is that pressure from without which obliges a man to part with the product of his ingenuity or his toil at a lower price than he might otherwise get for it. It is incessantly at work equalizing and cheapening the values of things. It cuts down profits, wages, salaries and rents. No one admires its operations in his own case. It is a common saying that every man likes free trade well enough for his neighbours, but no man is fond of it in his own business.

"But there is another side of the question. No man is a producer without being a consumer also. The grocer, the carpenter and the tailor belong, as such, to the producing class; but they are

themselves consumers also—consumers of an immense variety of commodities which minister to their food, habitation, clothing, instruction, enjoyment, and all the necessities of their existence, as well as to the ten thousand artificial wants which are incident to a high state of civilization. If we regard these several tradesmen from the opposite point of view—as purchasers and consumers of commodities for which the produce of their own industry has to be exchanged—we shall see clearly that if it is their interest to sell dear, it is still more their interest to buy cheap. It would be of small advantage to any one of them to be able to get rid of every competitor in his own trade, if he should find at the same time that every morsel of his food, every article of his attire, every implement of domestic use, every convenience or luxury which habit had made essential to his enjoyment, had mounted up at the same time, by the suppression of competition among producers of these various commodities, to a monopoly price. It is impossible for any one who carefully considers the subject, to doubt that each individual of the community is a large gainer on the balance by that reduction of prices which is caused by the universal prevalence of competition, although his own profits as a producer are kept down by the same cause. In other words, the cheapness of commodities in general is for the benefit of the whole community; though, as is self-evident, if every man is to buy cheap what he wants to buy, he must sell cheap what he has to sell.

“The reason for what has now been stated is plain. There is no man who does not consume a hundred articles for one that he produces. Take the case of the farmer. He is a grower of corn, and he thinks it hard perhaps that he is obliged to abate his price to meet the Russian or American corn-grower in the English market. Here he feels the pinch of competition. But enter his house; observe its furniture, conveniences and comforts; consider the woollen, linen and cotton fabrics that compose his attire; the ingredients of his food, the contents of his tea caddy, the machinery and implements that he uses in his business, the large number of articles, in-doors and out-doors, contributed by the loom, the forge, the mill, the foundry, the tan-pit, the factory and the printing press, composed of materials extracted from the bowels of the earth, or drawn from the most distant corners of its surface. Trace the history of the origin and production of

each article of the catalogue, and the result to a mind unaccustomed to reflect on such matters will appear perfectly astonishing. It will appear that it is no exaggeration to say, as an eminent writer has said, that 'it is not without the co-operation of many thousand hands that the very meanest person in a civilized community is provided, even according to what we falsely imagine to be the simple and easy manner in which he is commonly accommodated.'

"Now let us recollect that the same law of competition which cheapens the farmer's corn has cheapened likewise the labour, and cut down the profits of those many thousand persons, capitalists and workmen, all over the world, who have toiled or spent for his benefit; that each one of those commodities that conduce to his enjoyment has undergone the same corrective influence of competition which has placed within his reach comforts and luxuries unknown to the rude chiefs and nobles of former times. If, indeed, competition operated partially, or in an unequal manner, there would be some reason to complain of its injustice. But nothing can be more equal and uniform than its operation; in all cases at least in which human legislation does not interfere and create some exception in favour of a privileged class. If its operation is to cut down prices, it also lowers wages, reduces rent, diminishes the profits of capital, and lessens the value of property. If it presses on the farmer, it also puts a check on the demands of the manufacturer. If it compels the mechanic to sell his labour at a lower rate than he would otherwise get for it, the shopkeeper with whom he deals is subject to the same necessity. If it seems occasionally to bear with peculiar harshness on the most helpless class of the population, as at those seasons when their numbers happen to exceed the means of employment; on the other hand, it is the agency which produces and maintains that cheapness of prices by means of which the working classes are made partakers in the benefits which flow from the progress of civilization, the spread of knowledge, and the discoveries of science. It is in the struggle of competition, the effort which each man makes to get ahead of his rivals in manufactures or business, that invention is stimulated, new energies are roused, and improved methods and cheaper processes are struck out. While under the influence of monopoly all is lifeless and stagnant,

Under competition ingenuity is ever on the stretch to devise new means whereby the same value may be realized at a less cost of production ; and whenever this takes place, though the fortunate discoverer may pocket the increased profit for a while, yet sooner or later the improvement becomes public property, and the whole community gets the benefit of the invention in the increased cheapness of the commodity. Hence arises that progressive reduction in the cost of the comforts and conveniences of life, which is one of the most prominent features in the industrial system of the present age, and of which it is inevitable that the benefits should descend in a large proportion to the humblest classes of the community."

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### LESSON XXIII.

#### STOCKS.

**NOTE.**—It might be considered an omission at this part of the subject, if I did not say a few words on stocks, land and rent, although land and rent have not yet obtained the importance and complications in this country which cause them to occupy so large a place in English works on political economy. The following lesson will be devoted to some elementary explanations in regard to stocks.

*What are Stocks?*—Stocks, in commerce and political economy, are "Public funds or securities ; funds consisting of a public debt due by Government to individual holders, who receive a rate of interest ; or stocks are funds employed in some business or enterprise by an incorporated company and divided into shares." The *American Cyclopædia of Commerce* says : "In the United States, the term stocks includes the United States funded loans and state loans, and the shares in various corporations, such as railroad companies, banks, funded debts of cities, &c. In England, the term stocks is applied mainly to

government funded debt, such as consols, Bank of England stocks, &c. ; and the term *shares* is used when applied to the capital or joint-stocks of railroad, banking, and mining companies."

*What are Consols ?*—Consols are an abridgment of the words *consolidated annuities*, and denote a considerable portion of the public debt of Great Britain, known as the three per cent. consolidated annuities. These constitute a transferable stock, the varying price of which is taken as an index to the value of other stocks.

*How are the Values of Stocks expressed ?*—When a stock sells for what it cost, that is, when a hundred dollars' worth of the original capital sells for one hundred dollars, that stock is said to be at par. When it sells for more than this it is said to be above par, and when it sells for less it is said to be below par. Thus stock reported as selling at 130 per cent. means that stock which originally cost one hundred dollars sells for one hundred and thirty dollars ; and stock reported as selling at 75 per cent. means that stock the original issue of which was one hundred dollars per share, sells for seventy-five dollars per share.

*On what does the Value of Stocks depend ?*—Stocks being an article of merchandise, and, as in other articles of merchandise, some persons wish to sell and others wish to buy, their value is affected by the same circumstances as any other capital, namely, by the *interest*, *profit*, or *dividends* which they pay and the *risk* which they involve. If the profit be equal to the ordinary interest of money, and the risk be as nothing, the stock will be at par ; if the profit be large, and the risk be little or nothing, the



value of the stock will be high above par ; but if the profit be high, and yet the risk great, the stock may be low in the market ; and if the profit be less than the ordinary interest on money, though the risk may not be great, the market value of the stock may be below par. It often happens, however, that when the risk is as nothing, like government stock, the stock is above par, though the profit may be less than the ordinary interest of money. But when the risk is great, as in steamboat and insurance company stock, though the profit may be great, the market value of the stock is generally low.

*But why is it that the same Stocks are frequently rising and falling in Value in the Market ?*—Two causes chiefly influence the market value of stocks, it being assumed as matter of fact and experience, that the opinion of the value of stocks is based upon the expectations of profit and loss, or anticipations of the increase or diminution of risk :—

First, The failure of a bank or of a company, civil disturbances, apprehended instability of government, or foreign invasion or hostilities, or failures in the crops or manufactures, or civil disturbances or wars in the countries with which we are connected by trade and commerce—all or any of these circumstances seriously affect the market value of stocks.

Second, The variations in the market value of stocks are often caused by *fraud*. If a capitalist can cause the circulation of a rumour which will depress any stock say three or five per cent., and then buy fifty thousand dollars' worth of such stock during the depression, selling it again the following day at its original value after the detection

of the false rumour, he will thus, in the course of twenty-four hours, realize fifteen or twenty-five hundred dollars by the transaction, and that with little risk or trouble, "while the timid and unfortunate seller is cheated out of this amount without reason and without remedy."

Then another fraudulent method of stock-jobbing is by giving an enhanced and fictitious value to stocks. Suppose a particular stock to be worth not more than fifty per cent., and that a few individuals club together and buy up this stock at the reduced price; the stock, becoming scarce, will begin to be inquired after, when small quantities of it will be put into the market by agents of these parties, and bought up by themselves at increasing prices. With careful manipulation this stock may be raised in a short time to seventy-five per cent. or even to par, by the owners carefully keeping up the price, buying little and selling much, until they have disposed of the whole of their stock at twenty-five or fifty per cent. more than they gave for it a few weeks before. In the meantime the cause of this rise in the stock having been removed, the effect ceases, and the new purchasers find their stock falling from twenty-five to fifty per cent.

By these fraudulent methods of operating upon the Stock Exchange in various cities, especially in New York, many thousands of persons are ruined every year, while many swindlers have realized wealth. This should be a warning to the uninitiated how they speculate in stocks.

At the same time it may be observed that variations in the market value of stocks are not always caused by fraud, but are often, perhaps generally, the result of some one or more of the first of the causes above mentioned.

## LESSON XXIV.

## LAND AND RENT.

*What do you mean by Land?*—By land I mean real estate, or the instrument by which the farmer produces the various vegetable and animal substances which he offers in exchange.

*What is the Difference between Land and Capital?*—Land is one form of capital; but in ordinary intercourse and in political economy, capital signifies the money or stock which a merchant, or banker, or manufacturer employs in his business; while land signifies that portion of the soil or ground which any one possesses, and especially that which is cultivated for agricultural purposes. We call the wages of land *rent*, and the wages of money *interest*, and the wages of merchandise or manufactures *profits*.

*How is the Price of Land Regulated?*—The price of land is regulated the same as that of any machine, according to its productiveness.

*On what does the Productiveness of Land depend?*—Assuming the climate to be the same, the productiveness of land depends upon two things—namely, its *fertility* and its *nearness to market*. 1. Some farms, with the same amount of labour, will produce much larger crops and sustain more stock than others, and will therefore command proportionally higher rent. 2. Some farms are much nearer to market than others. The produce of one farm has to be transported fifty or one hundred miles to market, while that of another farm is within five or ten miles of a market; the produce of the former farm will

be worth as much less that of the latter farm as the cost of transporting its produce to market costs more. The rents of the two farms will differ in value accordingly.

*On what other Circumstances does the Price of Land and Rent depend?*—The price of land and rent depends on various circumstances, among which are the following:—

1. The age of the settlements of a country. In the first settlement of a country land is of little or no exchangeable value, as every one may have as much of it as he pleases. In such circumstances land will command no rent, and the price of the land itself will be nominal. The land will only support the cultivator. But as the inhabitants multiply and the settlement of the country advances, land will pay rent, and therefore command a price; and the rent and the price will rise in proportion to the increase of wealth and population, the scarcity of good lands, and the exchangeable value of products.

2. The facilities of transporting the products of land to market will greatly influence the price of land, as well as the prices of its products. In the Genesee country, between Rochester and Geneva, in the neighbouring State of New York, the price of wheat in 1821 was thirty-one cents per bushel; in 1822 it was thirty-seven cents per bushel. The following year, 1823, the canal connecting Buffalo with Albany was opened, thus facilitating the transportation of produce to the New York market; the price immediately went up to sixty-two cents per bushel, and it has since risen to a dollar and upwards, while the price of land has risen in proportion. In this country the facilities of transportation of products by canals, railroads, macadamized roads and steam navigation have, equally with the State of New

York, enhanced the prices of products and of lands. The railroads especially have enriched thousands of farmers—doubling the market value of their products and farms. When a farm is so distant and so shut out from market for want of facilities of transportation that the expense of transporting the produce to market is equal to its price, such produce, beyond what is necessary to support the cultivators of the land, has no market value, and the price of land is little more than nominal.

3. The quantity and quality of timber growing upon land, within any transportable distance of market, greatly influences its value.

4. The presence of waterfalls affects the value of land. "A waterfall provides for the manufacturer a constant supply of momentum, which he can use by means of very simple machinery. Supposing it to be in a situation in which there is a demand for this power, the land which gives the legal right to use it will possess a value proportioned to the value of the power. Of course the value which it would command would depend upon the annual value of the privilege. This would be determined by the amount of applicable power and by the situation. A power sufficient to move a dozen mills would be twelve times as valuable as that which would move only one. A water power near the sea-board would be much more valuable than one in the interior."

5. The price of lands is vastly influenced by the discovery of mines, whether of iron ore, or copper, or silver, or gold, or oil, or salt, &c.

6. The creation and operations of a manufactory or manufactories largely influence the value of land in a

neighbourhood, employing much capital, increasing the population, creating a demand for labour and the products of the land, and greatly enhancing its value.

7. Beauty of situation operates greatly upon the price of land, the preference being given in all cases to a farm which commands a rich and beautiful prospect, and adorned with well arranged trees and shrubbery. An experienced and practical observer remarks: "This is a circumstance which should always be borne in mind by the occupiers and owners of land. It costs but little more labour to lay out an orchard regularly and beautifully, than to lay it out irregularly and clumsily. It costs nothing to let a tree stand where it adds beauty to a prospect, and it costs very little to plant one where it will have the same effect. A neat and convenient house consumes neither more lumber nor nails, nor labour, than a slovenly and inconvenient one. And yet on these differences very much of the exchangeable value of the farm depends."

8. The intellectual and moral character of a neighbourhood has also a great influence upon the value of land in its vicinity. In the estimation of any intelligent man or discreet parent, land would have little value or attraction in a neighbourhood of drunkenness, lawlessness and vice, while he would seek land at a high price in a neighbourhood where his children would not be exposed to the contamination of vice, but be surrounded by examples of virtue and accessible to means of instruction, where the industrious and moral character of the people would be a protection against dishonesty and theft. A New England writer says: "Besides the advantages which intelligence and virtue confer upon the character of a people, there is also the additional advantage in the increasing value of

property which they produce. It may be fairly questioned whether this of itself be not sufficient to repay the whole expense of literary and religious institutions. There are towns in New England in which, within a few years, the price of real estate has doubled for no other imaginable reason than that of the literary and moral advantages which they hold out to residents. This mode of increasing the value of property seems to me deserving of more attention than it has generally received."—(*Dr. Wayland's Elements of Political Economy*, p. 350).

NOTE.—I have thought it unnecessary to notice several other circumstances which influence the value and productiveness of land, such as those which apply to cities and towns in regard to sites, whether for private residences, for shops, or for warehouses, &c.

*Is the Interest of Land, or of Real Estate in general, equal to that of other Property, or of Money?*—No; the rent of land worth one thousand dollars will seldom equal one-half the interest on a thousand dollars in money.

*Why then is there such a general Preference for Landed Property, both for Possession and Security?*—The following reasons have been assigned to account for the preference for capital in land over other property, though yielding less annual profits:—

1. The principal of the property in land is indestructible, and therefore more secure than that of any other property, and safer for all investments, nothing being paid for the risk.

2. The title to land admits of being more definitely secured than that of any other—being matter of public record, and its boundaries defined with precision. The land itself cannot be removed; and its ownership can always be ascertained, and conveyed to posterity.



3. Ownership of land generally imparts an influence and consideration which men do not derive from any other possessions. In the rural parts of this country, and in some other countries, the elective franchise is limited to landholders. In all countries where the right of suffrage exists, the landowner is invariably included. This fact shows the degree of consequence which is everywhere attached to this sort of possession ; and it has of course an influence on the value of landed property.

4. The natural progress of society tends to increase the value of landed property. It is evident that, land remaining the same and the population increasing, the demand and value of land will also increase. "The progress of society creates not only a more extensive demand for land, but a much greater variety of demands. As such is the tendency, men are willing to hold land at a less interest than other property, in the hope that the rise of price at some future time will compensate for their present loss. Thus men frequently invest money in wild lands, expecting to reap no profit from them for many years, but calculating upon a rise at some time or other which shall abundantly repay both principal and interest."

5. "There is," says Champlin in his *Political Economy*, "a universal desire to possess a portion of land. It is our 'mother earth;' and when one is able to appropriate a portion as his property, he treads it with a conscious pride. He seems to rest on a solid foundation, and he spares no labour or pains to make it secure. Under such a division of land each farmer is an independent yeoman, and cultivates the intelligence, the character and sense of responsibility suited to his position." Dr. Wayland remarks : "There is, I think, in the human race a

strong desire to become the owners of land ; and a natural love of the pursuit of agriculture. Men of all professions look forward to some period of life in which, relieved from the toils of business, they may retire to the quiet country. To whatever extent this disposition exists, it of course tends to raise the price of land above that of other property paying the same rate of profit. If a man receive a part of his remuneration in pleasure, he will be content to receive less in the form of money."—(*Elements of Political Economy*, p. 355.)

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## LESSON XXV.

### TAXES: PRINCIPLES OF TAXATION.

*What are Taxes ?*—Taxes are what the inhabitants of a country pay for the produce of government.

*What is the Produce of Government ?*—The produce of government is first and chiefly, protection ; and secondly, provision for and co-operation in all the essential measures and elements of material and social progress. But protection involves various instrumentalities, such as laws, courts of justice, prisons, the fortresses, arms and forces of national defence, and all the human agents of their operation and efficiency ; and the material and social progress of a country requires, in addition to protection, all such provisions and measures which will facilitate communication through every part of it, and which will tend and help to develop agriculture, manufactures and commerce, and educate each succeeding generation in all the preparatory knowledge necessary to enable all classes of the people to

employ their physical, intellectual and moral powers to the best advantage for themselves and their country. This produce of government is not only of high value, but the highest of all values to a country, since without it other things would be of little or no value. It is in exchange for this produce of government—this perennial source and highest of all values—that taxes are demanded and cheerfully paid by every individual who has a just sense of the service rendered, knowing that whatever amount he pays in the form of taxes is exceedingly small in comparison with the benefit he receives.

*How many kinds of Taxes are there?*—There are two kinds of taxes—*direct* and *indirect*.

*What are Direct Taxes?*—Direct taxes are a certain amount assessed upon, and required to be paid by every individual in proportion to the property which he is known to possess; or in other words, “a direct tax is one which is demanded of the very persons who it is intended or desired should pay it.”—(*Mill's Principles of Political Economy*, Vol. II., Book V., chap. iii., sec. 1.)

*What are Indirect Taxes?*—Indirect taxes are those which are imposed upon imports, exports and manufactures, that is, taxes demanded of one person in the expectation and intention that he shall indemnify himself at the expense of another. For example: “The producer or importer of a commodity is called upon to pay a tax on it, not with the intention to levy a peculiar contribution upon him, but to tax through him the *consumers* of the commodity, from whom it is supposed he will recover the amount by means of an advance in price.”—(*Mill's Principles of Political Economy*, Vol. II., Book V., chap. iii., sec. 1.)

*Which of these two kinds of Taxes is considered preferable?*—This is a largely debated question. The system of taxation must depend much upon the kind of government established, and the circumstances of the country taxed.

In favour of direct taxation, it is said that it is more just, being imposed upon each individual according to his property, and in proportion to the benefit which he derives from the government in the protection of his property; also that the people know how much they give, and in what manner what they give is expended; that the more people feel taxation, the more jealously will they watch over public expenditure.

Against a direct tax it is urged the collection of it is expensive; that, as men sensibly feel, there is often ill-feeling, and sometimes resistance, attending the collection; and that the parsimony fostered by it often prevents the needful appropriations requisite for public improvements and works of necessity.

On the other hand, an indirect tax is paid by the *consumer*, not according to the benefit which he receives from the existence of government, nor according to the value of property which he possesses, but according to the amount of production which he consumes. In favour of an indirect tax, it is said that it is collected with less trouble and expense than a direct tax, and with less liability to ill feeling and collision between the tax payer and the tax collector. The imports of a country are received at comparatively few places, called "ports of entry." On the arrival of goods at these places they are charged with the prescribed duty, which is paid with little trouble by the importer, who adds the amount of the duty to the price

of the goods, which is paid by each succeeding purchaser until it comes at last to the *consumer*, who pays it in the increased price of the various articles which he purchases and consumes. He may think his groceries, cloths, cottons, silks, &c., are rather dear, but may console himself with the reflection that they are no dearer than they have been heretofore. It is frequently said, the people do *not feel indirect taxes*, as they do not know when they pay, how much they pay, or whether they pay at all or not.

*On what Principle should Taxation be Regulated?*—The fundamental principle of just taxation is, that individuals as far as possible should pay taxes in proportion to their property; that is, in proportion to the amount of protection which they receive from the government. In giving effect to this principle in indirect taxation, a discrimination must be made in the duties imposed on different kinds of goods; that is, articles of necessity, which are consumed in nearly equal quantities by the rich and poor, should be either exempt from taxation or taxed lightly; while articles of luxury, or those used chiefly by the rich, should be made to bear the greater part of the burden.

#### NOTES.

1. *Indirect Taxation preferable.*—"It is a real advantage on the side of indirect taxes, that what they exact from the contributor is taken at a time and in a manner likely to be convenient to him. It is paid at a time when he has at any rate a payment to make; it causes, therefore, no additional trouble, nor any inconvenience but what is inseparable from the payment of the account. He can also, except in the case of very perishable articles, select his own time for laying in a stock of the commodity, and consequently for the payment of the tax. The producer or dealer who advances the tax is, indeed, sometimes subjected to inconvenience; but in the case of imported goods this inconvenience is reduced to a minimum by what is called the warehousing system, under which, instead

of paying the duty at the time of importation, he is only required to do so when he takes out his goods for consumption, which is seldom done until he has actually found, or has the prospect of immediately finding, a purchaser."—(*Mill's Principles of Political Economy*, Vol. II., Book V., chap. vi., sec. 2.)

2. *True Reform involving an Increase rather than Reduction of Expenditure.*—"There is hardly any reform or improvement of the first rank, proposed of late years and still remaining to be effected, which would not probably require, at least for a time, an increased instead of a diminished appropriation of public money. Whether the object be popular education, emigration and colonization, a more efficient and accessible administration of justice, a more judicious treatment of criminals, improvement in the condition of soldiers and sailors, a more effective police, reforms of any kind which, like the slave emancipation, require compensation to individual interests; or, finally, what is as important as any of these, the entertainment of a sufficient staff of able and highly educated public servants to conduct in a better than the present awkward manner the business of legislation and administration—every one of these things implies considerable expense, and many of them have again and again been prevented by the reluctance which exists to apply to parliament for an increased grant of public money, though the cost would be repaid often a hundred-fold in mere pecuniary advantage to the community generally. I fear we would have to wait long for most of these things, if taxation were as odious as it probably would be if it were exclusively direct."—(*Mill's Principles of Political Economy*, Vol. II., Book V., chap. vi., sec. 2.)

3. *On the duty of supporting Civil Government, and the impolicy and evil of creating and hoarding a Surplus Revenue.*—No prudent man who would wish to employ his capital to the best advantage of either profit or usefulness, would hoard his money up in a bank or in an iron chest, but he would expend and employ it in business or works of utility; still more would it be at variance with every sound maxim of political economy not to apply every farthing of the public revenue to advance the education of the people and various works of general usefulness. But the first duty and interest of every citizen, and the first claim on the public revenue,

is the support of the civil government itself. The late excellent Dr. Wayland thus writes on the subject: "The expenses of civil society have been spoken of as a public burden. It ought, however, to be remarked that it is one of the burdens which every good citizen should be most willing to sustain; as it is a mode of expense for which we receive a most abundant equivalent. If any one doubt this, let him ask himself what expense would be necessary to secure for him and his property that protection which he now receives for the trifling sum which he pays in taxes. The sum paid for the necessary expenses of civil government is very trifling when compared with that which is annually expended in journeys of pleasure, in luxuries of the table, in ornaments of dress, nay, in profligate amusements and vicious indulgences. Every good citizen, while he is under obligation vigilantly to watch over the manner in which public money is appropriated, is bound to contribute, cheerfully and liberally, for every purpose required for the public good.

"It will scarcely be necessary for me to add, after what has been said, that a *surplus revenue is a public nuisance*. It gives to the government a control over the monetary affairs of the country at the best dangerous, and a control which is very liable to be exerted for the promotion of party purposes. It hence gives an additional, an unnecessary, and a dangerous power to the majority, and gives them the means of perpetuating that power indefinitely. It is taking productive capital from the hands of the owners, and vesting it in hands where there is every temptation to spend it uselessly if not viciously. The world has never yet seen a government so pure that it would not become corrupt if a surplus revenue were permanently placed at its disposal."—(*Elements of Political Economy*, pp. 396, 397.)

A short time before publishing the work (in 1841) containing these remarks, a surplus had accumulated in the general revenue of the United States, which had been distributed among the several states. In a note on the concluding part of the passage above quoted, Dr. Wayland adds the following remarks: "Of that portion of the late surplus revenue which has been distributed among the states, the greater part has already been appropriated to internal improvements of very doubtful utility. No man can



look upon such waste of public property without pain, especially when he remembers that these millions were raised by obliging the poor man to pay a higher price for his coat, his axe, his loaf of bread, his salt, and his fuel."

4. *On the Necessity and Principles of supporting Civil Government.*—On this subject Dr. Wayland has the following practical and suggestive remarks:—

"This is by far the most necessary of any of the objects of public expense. Without government there could be no society; and without society there could neither be redress of wrong nor security of property. But government cannot be administered without officers; and no one will devote himself to the discharge of the duties of civil office unless he be paid for it.

"The principles which should govern this branch of expenditure are therefore few and simple:—

"1. Economy requires that precisely such talent should be employed in the various offices of civil government as may be necessary to insure the discharge of the duties of each office in the best possible manner. Many of these offices can only be discharged successfully by the first order of human talent, cultivated by learning and discipline, and directed by incorruptible integrity. Now it is certainly bad economy to employ inferior talent to do badly that which can only be of any service when it is done well.

"2. Hence the salaries of judicial, legislative and executive officers should be such as will command the services of such talent as the duties of each office require. It is most unwise parsimony to give to a judge such a salary as will command the services of nothing more than a third rate lawyer; and it is mean to ask an individual to do a service for the *community* at a lower rate than that at which he would do it for an individual.

"3. In answer to this it may be said that, by bestowing large salaries upon the officers of government, we present temptations to avarice. But I reply, the reduction of salaries by no means diminishes the evil. Were emolument to be reduced there would always be a contest for office. The only question then is, whether we shall have contest between men of *high* or between men of *low*

character ; between those who are capable of *serving us to our advantage*, or those who are only capable of serving us to our disadvantage. Were the most important trusts in the government to command no higher salaries than the wages of day labourers, there would be as great competition for them as at present ; only then the contest would be between day labourers, instead of being between men of professional ability."—(*Elements of Political Economy*, pp. 398, 399.)

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## LESSON XXVI.

### EDUCATION.

*What is meant by the Education of a Country ?*—By the education of a country is meant the education of each individual member of society, so as to qualify him to perform his duties and exercise his rights as a Christian citizen, whatever may be his circumstances, employment or profession.

*In what way is the Education of the People connected with Political Economy ?*—The education of the people has the most important connection with political economy on various grounds, some of which are the following :—

1. It fits each man, both by knowledge and principle, to understand and value the laws and government of his country, and to perform his duties and exercise his rights as an intelligent, Christian citizen. But a man who can neither read nor write cannot do this, but is often a weakness and danger to civil government, and therefore to the security of life and property. It is therefore wise economy and foresight, as well as humane duty, on the part of government, to provide for the universal and sound education of the people.

2. The productive power of each citizen is greatly increased by education. The fact that a proprietor or manufacturer, or manager of any producing establishment will give twice the wages to a skilled or educated labourer that he would give to an uneducated one, shows that the productive power of the former is twice that of the latter ; that is, that education has doubled the value of his labour ; and this is the conclusion established by the most extensive inquiries into the value of educated and uneducated labour by legislative committees and commissioners and public writers in both Europe and America. Were provision made and effectually carried into effect for such general education as is common to all classes, and makes each citizen a man, and then for such special education as specially qualifies the citizen for fulfilling the narrower round of duties which the "subdivision of labour imposes on the individual as his special contribution to the commonwealth," there would be no definable limits to the productiveness and progress of the country. Such is the dictate of sound political economy, and such should be the policy of government, as it is the impulse of patriotism not only to educate every man as a citizen, but to form a people well educated in what will prepare them for the several employments essential to the progress and grandeur of a nation, "where each workman shall thoroughly know his work ; where each foreman shall thoroughly understand the right principles and best methods of executing that work ; and where each master of a manufactory and each member of a profession shall have received the highest education in the philosophical principles and modern methods of his art, science or profession." An eloquent writer, in a work published in 1871 and dedicated to the Queen, says, as every right-hearted Canadian should say,

"The greatest nation is not, in my opinion, that which has, like the Dutch, the largest amount of gold and silver buried in its cellars ; nor that which, like the French, has the largest store of bullion in the state bank ; but that to my mind is the greatest nation which counts the largest number of well-trained, virtuous, well-doing citizens, patriotic, frugal and religious."—(*Systematic Technical Education for the English People*, by J. Scott Russell, Esq., M.A., p. 6.)

#### NOTES.

1. *Education the best Means of improving the Condition of the Poor.*—"Of all the obstacles to improvement, ignorance is the most formidable ; because the only true secret of assisting the poor is to make them agents in bettering their own condition, and to supply them, not with a temporary stimulus but with a permanent energy. As fast as the standard of intelligence is raised, the poor become more and more able to co-operate in any plan proposed for their advantage, more likely to listen to any reasonable suggestion, more able to understand, and therefore more willing to pursue it. Hence it follows that when gross ignorance is once removed and right principles are introduced, a great advantage has been already gained against squalid poverty. Many avenues to an improved condition are opened to one whose faculties are enlarged and exercised : he sees his own interest more clearly, he pursues it more steadily, he does not study immediate gratification at the expense of bitter and late repentance, or mortgage the labour of his future life without adequate return. Indigence, therefore, will rarely be found in company with good education."—(*Sumner's Records of the Creation*, Vol. II., p. 296.)

2. *Kinds of Public Education and Means of Providing it.*—"Education," says Dr. Wayland, "is of two kinds, *common* and *scientific*. Common education is limited to the teaching of those branches of which a knowledge is necessary in the pursuit of the ordinary occupations of life. This is a proper object of national expenditure, because it is for the interest of every man that every other man should be acquainted with the elements of learning. Specially is this the case in a representative government.

"A question, however, occurs both as to the manner in which a revenue should be raised and the manner in which it should be distributed. It may, for instance, be raised like any other tax, and paid into the public chest, and the teachers be paid as officers of government. Or it may be raised in different districts in which the schools are to be supported, and paid into the hands of district officers, who both oversee the schools and employ the teachers. The latter seems to be the preferable method. In this manner there will be by far the most lively interest maintained in behalf of the schools, the appropriation of money will be more vigilantly guarded, and the teachers will more probably be appointed on account of their skill and ability. The appointment of so many teachers could rarely be effected by a central government with either skill or fidelity; and the community having no interest either in the selection or the remuneration of the teacher, would rarely take that interest in the subject of education which the good of the pupils requires.

"On this subject, the principles to be kept in view seem to be simple. It seems necessary that every district sufficiently large to maintain a school should be obliged to maintain one, and that for this purpose the necessary funds be raised by the authority of the public. When, however, these funds have been raised, they may safely be left in the power of each district itself, in the belief that those who have themselves earned and contributed the money will be more likely than any other persons to disburse it skilfully and economically. Besides this, as upon such a system teachers will be wanted in large numbers, it may be desirable that seminaries be established for the special purpose of educating them. This will give uniformity to the system of instruction, and enable the science of education throughout a whole community the more easily to keep pace with the progress of science in the other departments of knowledge.

3. "*Of Scientific Education.*—That the cultivation and diffusion of science is greatly advantageous to the whole community, does not, I trust, require proof. Nations are at present principally enriched by the result of discovery and invention; and in consequence of the general diffusion of knowledge and intelligence, that a portion of the national revenue should be directed to the

promotion of these objects seems both equitable and wise."—(*Elements of Political Economy*, pp. 399-401.)

4. *Expenses of Education no Loss to a Country.*—It is worthy of remark, and it should always be remembered, that the money raised and expended in education is not money sent out of the country, but money distributed in the country, the same as money expended in farming, manufactures, railroads, &c., and is a profitable investment. The erection of an educational establishment or a good school-house increases the value of property in a neighbourhood, as does education the intelligence and morality of the people. After the expenditure of millions of money in educational and other public improvements, there is as much money in the country as there was before, with the added value of all the improvements, which proportionably increase the capital of a country. Sir Dudley North remarks: "The growth of wealth in a nation never thrives better than when riches are tossed from hand to hand."—(*Discourses on Trade*, p. 15.)

## PART IV.

## CONSUMPTION, OR USE OF WEALTH.

## LESSON XXVII.

## CONSUMPTION DEFINED : CONSUMPTION IN ORDER TO INCREASE WEALTH.

NOTE. — Having treated of production or accumulation of wealth, of exchange, of distribution or division of the profits of production and exchange, I come now to consider, in the last place, the consumption or use of wealth.

*What is Consumption in Political Economy?*—Mr. J. R. McCulloch remarks: "Consumption, in the sense in which the word is used in this science, is synonymous with use; and is in fact the great end of industry. The various products of art and industry are produced only that they may be employed to satisfy our immediate wants or add to our enjoyments, or that they may be employed as capital, and made to assist in producing others."—(*Principles of Political Economy*, p. 570.)

NOTE.—Consumption in its nature is the destruction of value; not indeed annihilation, for as we cannot create, so we cannot annihilate anything; but consumption signifies the destruction of that form of value or utility which the article possessed before its consumption. For example, wood or coal consumed by fire loses its utility as such, whether used as fuel or destroyed in a conflagration. Bread loses its utility, or its value as bread is destroyed, whether eaten or thrown into the sea, though in the one case its consumption creates vigour for labour, and in the other it is a loss.



*How many kinds of Consumption are there?*—There are two kinds of consumption; namely, that which takes place in order to increase wealth, and that which takes place in order to gratify desire and promote enjoyment.

*What is the Consumption which takes place in order to increase Wealth?*—It is the destruction of the value of an article in one form resulting in the increase of its value in another form. Thus, the farmer consumes labour, food, wages of labourers, utensils, manure, seeds, in the expectation that the crop will repay him for his various outlays, and yield him a recompense for his industry and skill.

The manufacturer consumes raw cotton, wool, iron, wood, &c., instruments, machinery, labour; but by the destruction of these articles in one form, he relies upon their increased value in the form of fabrics, cloths, hardware, tools, furniture, &c., to compensate him for the consumption in materials, the wear and tear of machinery, the expenditure of labour, and yield him, in addition, a reasonable if not large profit.

So the merchant consumes capital in the purchase of productions of his own country, and exporting them abroad in a ship owned by himself or some other person, and then purchasing goods abroad and importing them into his country, in the expectation that his outlay in purchases, the wear and tear of the ship, the labour, skill and subsistence of all parties employed, will be compensated with at least a fair profit by what he obtains both for his *exports* and his *imports*.

It is the order of nature that the grain of wheat must die in order to bring forth much fruit, and that value must be destroyed in order that value may be increased.

*What is the Principle of Economy involved in these Operations?*—The principle of economy involved in these operations is, that the expense must not exceed the receipts; that the returns must be greater than the outlay; that the amount of capital possessed on the completion of the operation must, exclusive of all expenditures and of decrease in the value of machinery employed, be larger than at the commencement of the operation.

The same principle of economy which thus applies to the operations of individuals and companies, applies equally to the operations of government and legislation, only that the operations of government are on a much larger scale, and more diversified than those of an individual or a company. Besides, the returns of governmental operation or policy are not generally so immediate or so direct as those of individuals. Often the expenditures of government in improving navigation, harbours, internal communications, &c., yield no direct return in money, but add greatly to the value of property and of the products of industry throughout the whole or many parts of the country, and thus greatly promote the comfort of the inhabitants and the aggregate public revenue. But a country or an individual whose expenses exceed the receipts, must be tending to bankruptcy rather than advancing in wealth.

*What then are the Rules of Economy to be observed when Articles are Consumed in order to increase their Value; or in other words, when one Farms, or Manufactures, or Trades in order to get Rich?*

1. A fundamental rule in any kind of pursuit is that a man should understand his business; that he should not undertake what he does not understand; that he

should know what to do and how to do what he takes in hand. Many a man wastes his capital by undertaking a business that he knows little or nothing about.

2. In order to produce a given result, the consumption of capital should be as small as possible. "*A penny saved is a penny earned,*" is a maxim as true as it is common. The farmer should in every possible way economize his materials, as should the manufacturer, the mechanic, the trader, and every kind of consumer and producer. If A expends sixty dollars and B expends eighty dollars to produce one hundred dollars, it is clear that the profits of A will be twice as large as those of B by the operation. If A makes his house tight in the autumn so as to keep out the cold, he will consume during the winter little more than half as much fuel as B, who leaves openings in doors, windows, &c.; through which the cold air enters. If a farmer wishes to keep his cattle in good condition during winter, he can do so with little more than half the food by housing them in a warm stable than by keeping them in a cold stable, or leaving them exposed to the cold without any covering.\* It is said that "not more than one-tenth of the heat given off by wood is rendered serviceable by the common fire-place." The principle of this rule applies to the economy of every step and branch in the process of every pursuit or business, whether agricultural, manufacturing, mechanical or commercial.

3. Another rule in the consumption of capital, in order to increase its value, is that the consumption should be as complete and profitable as possible. If any part of the materials employed in manufacture be not consumed,

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\* The agricultural reader may see much more on this subject in my *First Lessons in Agriculture*.

that is, be wasted, the cost of the manufactured articles will be higher, and the profit of the producer will be less. For example, in the consumption of wood for fuel, after all the heat which it can evolve is derived from it, there remain the *ashes*, which possess an important value in several respects, but which are often thrown away and wasted. After the consumption of fodder by cattle their excretions are of great value as manure, in increasing the productiveness of the farm, but are often left unused and wasted. An article of food which may not be used in one form may be used in another form; an article of clothing which will not answer any longer for one purpose may be used in some other form. After a linen garment is worn its value is not exhausted, as it still possesses an important utility as a material for the manufacture of paper. Even India rubber shoes when worn out possess a valuable utility in the manufacture of India rubber cloth. The late Mr. Babbage, in his remarkable book, *On the Economy of Machinery and Manufactures*, gives numerous examples in illustration of this rule. One example may be quoted to show to what purposes the horns of cattle may be applied before their value is exhausted:—

“1. The *lowest part*, next to the root of the horn, after undergoing processes by which it is rendered flat, is made into *combs*.

“2. The *middle of the horn*, after being flattened by heat and having its transparency improved by oil, is split into thin layers, and forms a substitute for glass in lanterns of the commonest kind.

“3. The *tip of the horn* is used by the makers of knife handles and the tops of whips, and for other similar purposes.

“4. The *interior*, or core of the horn, is boiled down in water. A large quantity of fat rises to the surface; this is put aside and sold to the makers of yellow soap.

"5. The *liquid itself* is used as a kind of glue, and it is purchased by cloth dressers for stiffening.

"6. The insoluble or bony substance which remains behind, is then sent to the mill, and being ground down, is sold to the farmers for manure."—(Pp. 217, 218: "On the Causes and Consequences of Large Factories.")

In another chapter (pp. 88, 89), "Of Copying by Moulding," Mr. Babbage remarks: "The property which horn possesses of becoming soft by the action of water and of heat, fits it for many useful purposes. It is pressed into moulds, and becomes embossed with figures in relief, adapted to the objects to which it is applied. If curved, it may be straightened; or if straight, it may be bent into any forms which ornament or utility may require; and by the use of the mould, these forms may be multiplied in endless variety. The commoner sorts of knives, the crooked handles of umbrellas, and a multitude of other articles to which horn is applied, attest the cheapness which the art of copying gives to the things formed of this material."

Dr. Wayland remarks: "Hence we see the importance, in all cases, of entirely exhausting *all* the values contained in any product before we surrender it up as worthless. For the want of this care, millions of property are annually wasted. The difference between the cost of two establishments—in the one where *every* utility of every substance is consumed, and in the other in which only the first utility is consumed—is frequently as great as the net profits realized in the ordinary employments of industry."—(*Elements of Political Economy*, pp. 363, 364.)

In another place (p. 373) Dr. Wayland remarks on the same subject: "Hence we see the superiority of the economy of large establishments to that of smaller ones. A large manufacturing establishment can carry on several distinct operations for the sake of using these secondary utilities. In a small one this would be impossible, and much must in consequence be wasted. Thus, in connection with a large slaughter-house I have seen a soap and candle manufactory, a manufactory of glue, and one of neat's foot oil; while a large number of hogs were fattened with the refuse of these several establishments. In this manner every part of the slaughtered animal was profitably consumed."

4. Economy in the consumption of *labour* is no less important than economy in the consumption of *material*. Neither *more* nor *less* labour should be employed than is necessary to accomplish what is proposed and required. "One supernumerary labourer is not only useless in himself, but he generally requires the time of two or three others to keep him company in idleness. To employ *less* labour than is wanted produces confusion, and destroys the advantages of correct division of labour. It saves nothing to employ one person less than is necessary in an establishment, and to suspend the labour of others several times in a day, in order to do the work that one should have accomplished."

5. Economy requires also that the quality, and therefore price, of labour employed should correspond with the quality of the work to be done. "Every important operation consists of several subordinate operations, requiring different degrees of skill in their execution; and according to these degrees of skill the wages of labour are adjusted. He who is able so to employ and arrange his labourers as to execute by labour worth fifty cents what was formerly executed by labour worth one dollar, makes a gain of fifty cents a day. Thus, in the power press, the labour of press work which formerly employed two able-bodied men is now executed in part by animal force or by steam power, and the remainder by women. But while this is the fact, it is also the fact that it is never profitable to employ a labourer incapable of accomplishing the result. If a particular part of an operation require skill and labour worth five dollars per day, it is better to give him this price than to confide it to an incompetent person, who is willing to work for two dollars per day."

6. Economy requires likewise that labour paid for should be performed. Time is money to the employer, if not to the labourer ; and all the time that the labourer spends in idleness and story-telling is so much loss to the employer, and is in fact so much money, or money's-worth, taken from him without his consent. Where the labour is of such a nature as to permit it, it is cheaper to pay by the piece than by the day. In the one case if the labourer is idle, he wastes his own time ; in the other case, he wastes the time of his employer.

NOTE.—Other rules might be given on this subject in relation to economy in the consumption of both capital and labour with a view to profit, and illustrations might be indefinitely multiplied ; but if what has been above suggested be observed, the most essential conditions of success in various kinds of business will be fulfilled. But it can hardly have escaped notice, that what was remarked at the commencement of the lesson has been illustrated throughout, namely, that “a man, in order to be a skilful producer, must be acquainted with the laws of production ; that is, those laws of nature and of society which govern the transactions in which he is engaged. Hence we see the importance of accurate knowledge and sound mental discipline to all classes of society.”

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## LESSON XXVIII.

### CONSUMPTION IN ORDER TO GRATIFY DESIRE AND PROMOTE ENJOYMENT.

NOTE.—It has been shown that in all the operations of industry for the accumulation of wealth, there is going on a constant process of consumption, or, in other words, a destruction of particular values in order to produce other and greater values ; and certain rules have been suggested to promote economy in those operations. But it is only the miser that seeks the accumulation of wealth for



its own sake; it is usually pursued as a means to an end, and that end is the gratification of human desires of one kind or another, and in the gratification of those desires it is consumed or employed.

*What are the Desires to gratify which the Productions of Industry are Consumed?*—Among the desires subject to be gratified by the productions of industry are the following:—

1. Desires, the gratification of which is necessary for the preservation of life and health, such as those for food, clothing and shelter.
2. Desires to gratify the *senses* and *tastes*, such as those for luxuries of the table and of dress, and for the more refined pleasures of taste, in painting, music, statuary, architecture, &c.
3. Desires to gratify the *intellect* in the study and pursuit of knowledge, in the purchase and use of books, charts, philosophical instruments and apparatus, attendance at lectures, &c.; in short, any intellectual exercise or pursuit to acquire knowledge and skill that may afford pleasure, and better qualify to enjoy the blessings and perform the duties of life.
4. The desires for social pleasures, such as the exercise and enjoyment of hospitalities, which create and strengthen ties of good-will, friendship and happiness between the different classes and nationalities of the human race.
5. The desires for moral pleasures, such as those connected with religious worship, and the exercise and activities of the religious affections.
6. The desires of benevolence, humanity and patriotism, such as those for the diffusion of religion and knowledge,

the relief of want and distress, the promotion of our country's civilization, prosperity and happiness.

Some of these desires are more elevated and noble than others ; but the gratification of any of them involves the consumption of capital, and in some cases, not its reproduction in any form, much less in a form of increased value.

*What Rules of Economy may be laid down for the Consumption of Capital in the Gratification of these Desires ?*

—Most of the rules recommended in the preceding lessons in relation to consumption of capital in order to increase it, as the question does not relate to the wisdom or folly of any of these desires, but simply to the rules of economy to be observed in providing for their gratification. But two or three suggestions may be added to the rules or application of the rules already mentioned in reference to the domestic economy of the subject. A particular mode of living having been resolved upon to gratify one or more of the desires mentioned, economy will suggest that—

1. The consumption should be as small as may be necessary to accomplish the intended purpose. The principle of this rule applied to purchase articles for domestic use, requires that no more should be purchased than is wanted, as such articles ordinarily soon become tainted or otherwise unfit for use, and therefore become a total loss ; as a superabundance of anything consumable is liable to be used with less economy than if the supply were only what was necessary ; as the purchaser loses for several months or a year the interest on the money expended on articles purchased several months or a year before they are wanted. An old householder has said, that "it is generally as

economical to purchase at retail as at wholesale." It follows also that it is bad economy to buy a thing merely because it is cheap. Cheapness is no reason for buying a thing, unless one wants it. To buy things merely because they are cheap may fill a closet, or garret, or room, with practically useless and perhaps rotting articles.

2. The consumption of each article used should be complete; every part of its utility should be exhausted before it is thrown away. Thus, in general, "nothing should come into a house unless it is wanted, nor in a larger amount than is wanted; and nothing should leave it until all its utility is exhausted."

3. There is as much economy in procuring suitable articles for use, as in exhausting their utility before throwing them away. It is cheaper to buy a good axe at a higher price and keep it sharp, than to buy an inferior axe at a low price, or to use a dull axe in order to save the expense of keeping it sharp. It is cheaper to have every description of cooking vessels that may be needed, than to have food spoiled for want of them. It is cheaper to buy good fuel at a fair price, than to buy at a low price fuel that gives off little heat. Good cloth and good shoes at a good price are cheaper than poor cloth and poor shoes at a low price. The utility of the thing, and not the mere form of it, is what gives value to it. The lowest priced products, like the lowest priced labour, are often the dearest in the end.

NOTE.—The enjoyment of the comforts of life consists largely if not chiefly in the various operations of the household, the care and management of which depends almost entirely upon the mistress. The husband, by the productive employment of capital, labour and skill, procures the income for the purpose of

consumption in the various means of gratification, necessary or superfluous ; but the expenditure of that income in the household arrangements and economy devolves generally on the wife. "Hence," says Dr. Wayland, "it will be seen that the physical comfort, as well as the means of happiness of both parties, depends more on the domestic qualities of the female sex than is ordinarily supposed. Affection will rarely exist in the atmosphere of self-inflicted poverty. No man can respect a woman by whose caprice and ignorance of her appropriate duties he is plunged into disgraceful bankruptcy, and wedded to hopeless penury. Nor let it be supposed that no talent is requisite skillfully to superintend a household. It requires at least as much ability to direct, with skill and on principle, the affairs of a domestic establishment, as to select a ribbon, or dance a minuet, to finger a piano, or to embroider a fire-screen."

*What may be said as to the Economy in Providing for the Gratification of our various Desires ?*—Assuming that those desires are such as have been stated—namely, moral, intellectual, social, sensual, or for health and life—the attainment of happiness from any of them involves expenditure of time, or of property, or both ; but moral and intellectual pleasures are far less expensive than are the pleasures of the senses. The expense of an evening's fashionable amusement, or of a night's dissipation, in articles of dress, luxury, &c., far exceeds what would be required for moral and intellectual pleasures for weeks or months, including the social hospitalities connected with them. It costs no more to spend time in moral and intellectual cultivation, than to spend it idly and frivolously ; and if the time consumed in thoughtless dissipation were employed in intellectual and moral culture, great changes and improvements in habits and tastes would be effected. Nor are the pleasures of benevolence (apart from any considerations as to their objects) so expensive as those of the senses ; and were the sums lavished for the gratification of

the latter expended in charity, how large an amount of happiness might be created both for the benefactor and recipient; or were a part of such sums expended upon intellectual pleasures—for books and other means of intellectual gratification—how much would be added to the treasures of intellectual enjoyment and intelligence.

But while moral and intellectual pleasures are less expensive and more rational than those of the senses, they tend also to promote both individual and public wealth. For example, the exercise of benevolence tends to cultivate habits of self-denial and self-government, so essential both to industry and frugality, the sources of wealth and prosperity; whilst sensual self-indulgence tends directly to produce both indolence and reckless expenditure, the parents of vice and poverty. In regard to intellectual pleasures, a man cannot enjoy these without improving his mind and rendering it a more effective instrument for the accumulation of wealth and the promotion of his future happiness; while the gratification of the senses indisposes to any vigorous mental or bodily exercise, enervates the body, enfeebles the mind and depraves the heart.

What is true of individuals is also true of a nation. The industry, the self-denial, the enterprise, the intelligence, the virtues which promote individual prosperity and happiness, contribute also to national advancement and prosperity; for the aggregate of individual accumulation and enjoyment is the sum of national wealth and happiness. Mr. J. R. McCulloch has well remarked: "It is by the spontaneous and unconstrained but well-protected efforts of individuals to improve their condition and to rise in the world, that nations become rich and powerful. Their labour and their savings are at once the source and the

measure of national opulence and public prosperity. They may be compared to the drops of dew which invigorate and mature all vegetable nature : none of them has singly any perceptible influence ; but we owe the foliage of summer and fruits of autumn to their combined action."—  
(*Principles of Political Economy*, p. 565.)

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